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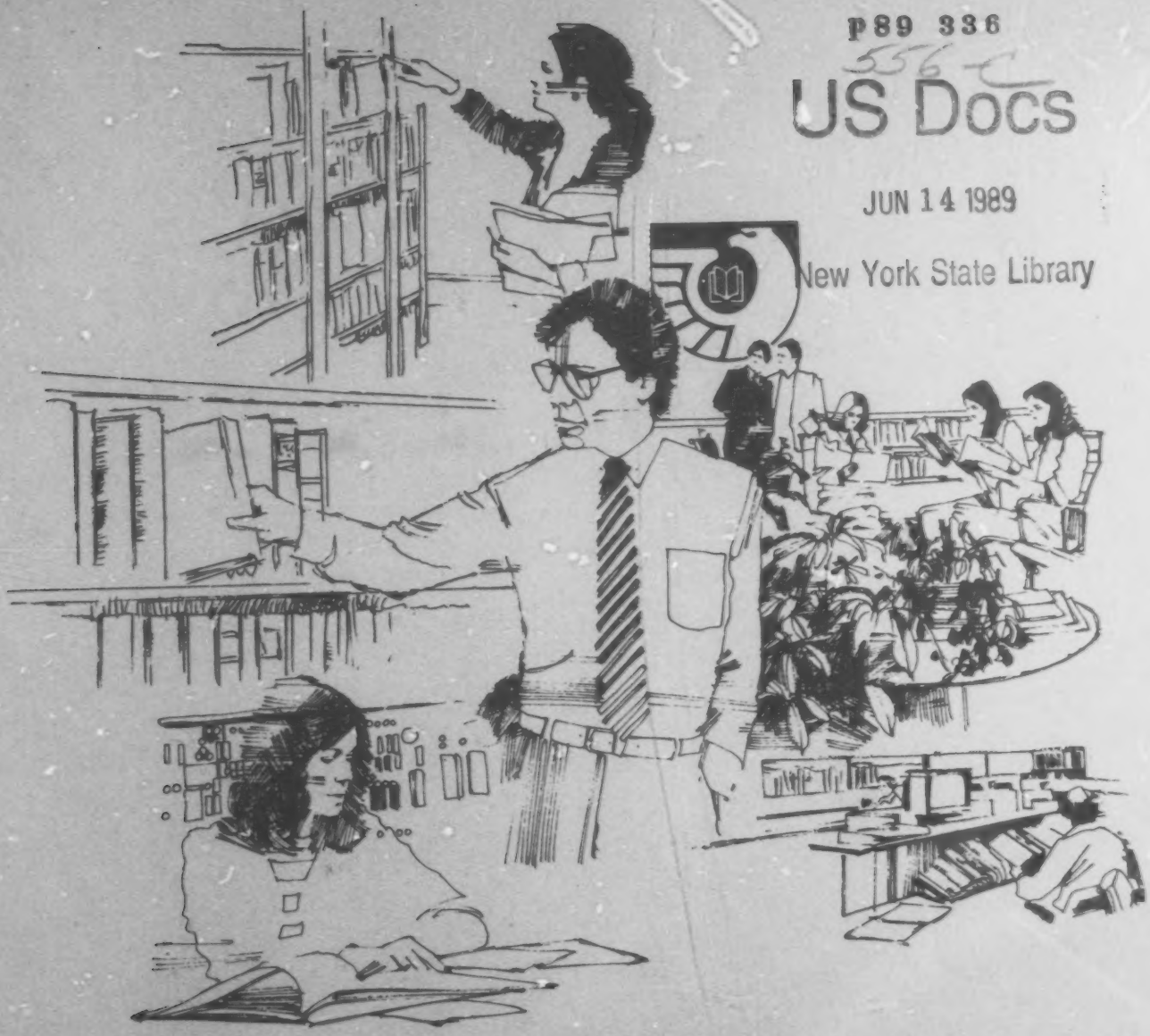

Users of Academic and Public GPO Depository Libraries

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Users of Academic and Public GPO Depository Libraries

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U.S. Government Printing Office
Superintendent of Documents
Washington, DC 20401

1989

Foreword

The Depository Library Program (DLP) traces its origins to a Congressional resolution passed in 1813, which provided for the printing of copies of congressional literature for distribution to State governments and legislatures. By a series of subsequent Congressional actions over the years, the DLP has evolved into a nationwide system providing free public access to Federal government information through a network of almost 1,400 depository libraries located in every state and Congressional district.

During a typical year, more than 20 million copies of some 40,000 government publications are distributed to depository libraries. In its Circular No. A-130 entitled "Management of Federal Information Resources," the Office of Management and Budget stated, "The depository libraries provide a kind of information 'safety net' to the public, an existing institutional mechanism that guarantees a minimum level of availability of government information to all members of the public." While this "safety net" metaphor may serve to legitimate the DLP as a worthy Federal program, it also implicitly depicts the DLP as merely a secondary and passive document source of last resort, rather than as a primary and popular channel for ready public access to Federal information. The unfortunate fact is that prior to 1988 there had never been a formal study of depository users to determine the real public impact of the DLP.

About two years ago the Office of Technology Assessment (OTA) posed to GPO a series of background questions in connection with research supporting an OTA study on Federal information dissemination. One of the OTA questions asked GPO to estimate the number of people who use depository libraries. As it was, GPO could not provide an answer; however, that particular question served as the impetus for the development of a formal GPO contract solicitation for a study of depository library users. In January 1988, after the evaluation of competing proposals from offerors, GPO awarded the contract to Information Management Consultant Services, Inc., with Professors Charles McClure and Peter Hernon as the principal investigators. Early on, the investigators sought the advice and support of the depository library community. They formed an Advisory Board of depository librarians and appeared before the spring 1988 meeting of the Depository Library Council, where they discussed their research plan and solicited suggestions from librarians. Both GPO and the investigators took considerable pains to keep the process open and participative throughout the course of the study.

On February 15, 1989 the report, *Users of Academic and Public GPO Depository Libraries*, was delivered to the GPO. I am pleased to announce that we at the GPO are delighted with the quality and integrity of the study, as well as with the findings in this report. Additionally, I would like to offer to readers a few personal observations, which you might bear in mind as you make your way through the report:

1. First of all, it is most important that we appreciate the formal significance of this landmark study as part of the evolutionary development of the DLP. The study represents a first step toward understanding the public impact and social value of depository collections and services. And, in providing an enumeration of depository users with their demographic characteristics, this study establishes a statistical baseline for future studies.

2. Because of the broad scope and complex nature of the task, the investigators found it necessary to make certain necessary, yet limiting, accommodations in the design and methodology of the study. Though some safeguards were built into the study to compensate for the resulting limitations, it must be understood that the findings should be interpreted only within the overall context of the study and with a full understanding of the stated limitations.

3. Those limitations notwithstanding, I believe that the report reflects a sound and vibrant DLP, providing government information services to millions of Americans every year. The number of users enumerated indicates a level of public impact that far exceeds the definition of "safety net". Rather, the findings limn the DLP as nothing less than a primary and heavily-used channel for delivery of Federal information to the American public.

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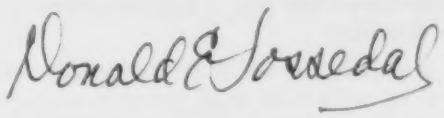
4. These findings tend to support the argument for further enhancing and expanding the established DLP system, such as in the area of electronic information transfer.

5. This report raises some profound questions as to the significance of its findings in terms of current program effectiveness and future planning for the DLP. We will be asking the Depository Library Council to consider these findings and develop appropriate recommendations that will assist us in our program planning. Therefore, depository librarians should direct any comments or suggestions to a member of the Depository Library Council.

Before closing, I want to recognize and thank some of the many people whose cooperation and good efforts contributed to the overwhelming success of the study. We are especially indebted to the Advisory Board members, to the pretest site librarians, and to the staff members of the 850 depository libraries that participated in the data collection effort. Lastly, I would like to express our appreciation to Donald Marchand, Dean of the School of Information Studies at Syracuse University, and his able staff for their extraordinary commitment and support throughout the course of the study.



DONALD E. FOSSEDAL
Superintendent of Documents

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In addition, we appreciate the support provided by Donald E. Fossedal, the Superintendent of Documents. The Government Printing Office printed and distributed the survey packets. We appreciate the support provided by Library Programs Service and other units of the agency in the printing and distribution of the forms.

We also appreciate the assistance provided by the staff at the pretest sites. Of course, the study could not have been completed without the support of the staff and users who participated in the actual study. We appreciate the care that many of them devoted to data collection.

The project could not have been completed successfully without the assistance and dedication of Nancy Preston, Lindsay Ruth, and Liz Haggarty-Roach, who served as Research Assistants and administered the data check-in and coding phases of the study. Beth Mahoney assisted in the production of graphics for the final report. We are especially grateful to all of them.

We also wish to acknowledge the support that the School of Information Studies, Syracuse University, provided. Without the support provided by Donald Marchand, Dean, the study could not have been completed in a timely and effective manner.

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Executive Summary

This study estimates the number of users of academic and public Government Printing Office (GPO) depository library materials, and describes these users in terms of selected characteristics. The GPO contracted this national survey, the first formal attempt to provide such data, to Information Management Consultant Services, Inc. in January 1988. The study was completed in February 1989.

Approximately 80 percent of the 1,054 academic and public depository libraries participated in the study during the Fall of 1988. Users of these libraries constitute only a portion of the users of all types of depository libraries and all types of United States Government publications. Furthermore, it should be stressed that this study examined *users*, not their *uses*, of depository materials.

The results from this survey estimate a minimum of 167,000 users, per week, of Government depository material in academic and public libraries. Depending on geographical region, the average number of users per week ranges from 143 to 243 for academic libraries and 68 to 127 in public libraries. Depository users tend to be highly educated and almost evenly split by gender. They describe themselves primarily as students or in professional or managerial occupations.

Chapter 1

Introduction

Two fundamental questions that can be asked about any library are:

- How many people use the library, its collections and services?
- What are the demographic and other characteristics of these users?

At this time, there is little information available to answer either question in regard to users of the United States Government Printing Office's (GPO) depository library program. Although "use studies" have characterized general types of users of an academic depository library's documents collection, research has not fully identified, categorized, and compared types of *users*, nationally and for different types of depository libraries.

Without information on users and uses, it is exceedingly difficult to engage in long-range planning for the depository library program, to review program goals, and demonstrate accountability of the program. Descriptive information may assist GPO and depository library staff in developing and refining services and programs. Perhaps more importantly, GPO policy makers and other government officials can better understand and characterize who uses different types of depository libraries. Such data could also offer general insights into the impact of the depository library program on the public.[1]

The intent of this study is to estimate the number of users of depository collections and services in academic and public depository libraries during a specified time period, to ascertain selected characteristics of these users, and to develop a methodology for estimating users and their characteristics.

In the request for proposals (RFP 5190187) that ultimately resulted in the awarding of this contract, the GPO identified the purpose of the project as "to acquire the resources to perform a study of Federal depository library usage" and, more specifically, the objective being "to define the numbers and types of users of Federal depository collections and services." Thus, the following investigation meets the specifications of a user—not use—study (see Chapter 2). *Users*, and not the information-gathering behavior of those users, is the focus of this study. In short, "user studies should focus not on what libraries do, but on what people do, or wish they could do if they could obtain the necessary information" (White, 1980, p. 83). More fundamentally, user studies indicate who uses libraries and particular collections. Nonetheless, a user focus, especially in the context of GPO's depository library program, raises a number of complex issues that must be considered and ultimately resolved before data could be gathered.

COMPLEXITY OF THE PROBLEM

Numerous difficulties are inherent in conducting a national user study. More than 1,000 user studies have provided "little information which can be applied to problems involving either the management of information work or the design of information products and services" (Mick, Lindsey, and Callahan, 1980, p. 348). Lancaster (1977, pp. 299–311) has discussed some of the reasons for these difficulties (see also Chapter 2). In addition, unique factors related to the nature of depository libraries, and their individualized settings and historical practices, compound these difficulties.

At a conceptual level, it is necessary to differentiate clearly and precisely between "use" and "users." Further, "user studies" are typically based on key assumptions related to the user's information needs, the situational context for seeking information, the availability of information sources and systems that the user may or may not understand, and so forth. Many tradi-

[1] The Government Printing Office might integrate the dataset into its in-house systems, PAMALA and DDIS. These systems provide an overview of the member libraries in the depository program and enable the GPO to answer Congressional inquiries.

tional assumptions have been challenged and new conceptual approaches, such as the "user-centric" model, have been proposed as a basis for conducting future user studies (Dervin and Nilan, 1986).

Another problem to be addressed is "Who constitutes a user of the depository library collection?" For example, if an individual browses depository material, is this person a "user?" What if an individual browses a government publication that the library received *not* as part of its depository shipments but nonetheless that publication is housed in the depository collection? Is that person a "user?"

Some depositories are organized as separate collections while others integrate documents throughout their collections. Some depositories maintaining separate collections still have depository materials in other locations. Even in integrated collections, depository materials can be "scattered" throughout the library or the library system. Further, many depository libraries house and service their microforms in different areas of the library even if they have a "separate" depository collection. How can the "users" of these materials be identified accurately?

Another problem common to user studies is how to deal with "secondary users." For example, faculty members at academic institutions send support staff (i.e., graduate assistants) to gather material for them. Thus, a user study may identify students as users when, in fact, faculty members requested the depository publication. Another example of indirect users would be those individuals who attend a class where the faculty member conveys government information or who read a scholarly publication that cites official sources. Can such "secondary" or "indirect" users of depository materials be accurately identified?

Another concern is the degree to which user studies accurately represent *all* users of a particular library. Despite the best efforts of most research designs, some users will not be identified and some who are identified will not wish to participate in such a study. This concern is especially difficult to resolve when users may go back and forth between depository material and other types of library holdings.

Finally, library users may not recognize that the specific source they require is, indeed, a government publication received on deposit through the GPO program. Recent studies have suggested that even some librarians are unaware of the difference between depository and other types of Federal government publications (McClure and Hernon, 1983; McClure, Hernon, and Purcell, 1986). Thus, simply asking users if they consulted depository material may not provide reliable and valid findings. The same may also be true for library staff as well. In light of this issue, the collection of data that accurately describe users of depository materials is a complex and difficult problem.

These examples illustrate the issues to which this study had to be sensitive and to address in the study plan (see Chapter 3). The completion of valid user and use studies necessitates that both conceptual and practical issues be considered and resolved (Mick, Lindsey, and Callahan, 1980). In short, operationalizing, i.e., providing a measurable definition for the concept, "user of a depository resource," requires careful analysis and the acceptance of trade-offs.

The conduct of user studies might be viewed from two different perspectives: management and research. The management perspective focuses more on utility of the findings to decision making and planning rather than on understanding the phenonemon at a more basic conceptual level. Clearly, managers often have different requirements than researchers. User studies are "error bound," which is to say that—speaking in a research context—there always will be unexplained "error." Such imprecision is common in virtually every type of measure in social science research. The issues to be addressed are:

- Identification of the likely sources of error
- Determination of how much error is acceptable, in a management context, for data used in library planning and decision making.

In short, "statistical and sampling error" should not be confused with the utility of data for decisionmaking and planning. To dispose of user studies and general data collection because of their statistical and sampling error is similar to

ignoring the *Consumer Price Index*, because it also contains such error. (The perspective of this study is one of providing data useful for decision making and planning, although the investigators took steps to minimize sources of error—see Chapter 3.)

Management studies should attempt to produce as high quality management data as possible. Research methods and data collection strategies that address previously identified issues, yet still produce management data that demonstrate reliability and validity, had to be designed. Because the study examined users at a large number of academic and public depository libraries scattered across the United States, the data collection process had to be clearly specified and easy to complete, and not comprise a time-consuming activity. Thus, it is important to view this investigation as a first effort to provide a preliminary count and description of users, and to identify problem areas. With such insights, subsequent investigators can improve the precision and utility of their data collection.

One final general observation is in order. Users of GPO distributed depository publications represent a subset of the users of many documents collections and of a library's clientele. Further, the public seeks government information from various information providers, only one of which is a depository library. Therefore, any nationally administered study of depository users cannot reach conclusions such as one-fifth of all library users consult depository holdings or one-tenth of the users of government publications depend on a depository library's collection.

ACADEMIC AND PUBLIC DEPOSITORY LIBRARIES

GPO's Depository Library Program: A Descriptive Analysis (Hernon, McClure, and Purcell, 1985) contains a detailed, descriptive analysis of the GPO depository program. At that time, 1,373 libraries participated in the program. As of 1988, the number is 1,394. The latter figure forms the basis for the present study. Because only a difference of 21 libraries separates both numbers, the findings of the earlier book probably still provide an accurate representation of depository libraries. Thus, this section offers a brief overview of libraries participating in the depository program based on findings from the 1985 study.

The geographic distribution for depository libraries is as follows (Figure 3-2 graphically depicts these regions):

- Northeast, 24.8%
- Midwest, 25.8%
- South, 29.7%
- West, 18.9%
- Outside the United States, 0.8%.

The South has both a larger number and percentage of depositories than do the other geographical regions. On the other hand, the West has the smallest percentage of depository libraries. The Midwest and Northeast have similar percentages.

Table 1-1, which is based on data gathered in 1984, suggests participants in the depository program by library type. The two private membership libraries are the American Antiquarian Society and the Boston Athenaeum, both located in Massachusetts. Together, academic and public libraries comprise over three-fourths of the participants in the program.

Table 1-1.—Library Types Participating in the Depository Library Program*

Type	Number	Percentage
Academic	765	55.7
Public	278	20.2
Federal	60	4.4
Law school	146	10.6
Court of law	60	4.4
State agency	45	3.3
Historical society	6	.4
Private membership	2	.1
Other	11	.8
Total	1,373	100.0

*Source: Hernon, McClure, and Purcell (1985), p. 59.

Given the heavy concentration of depositories in two library types, academic and public libraries, provide a meaningful focus for the current investigation. Law school libraries, although a part of an academic institution, comprise a special case, as do the remaining library types. Further, inclusion of all library types complicates data collection and the drawing of comparisons.

DATA ON THE NUMBER OF DEPOSITORY LIBRARY USERS

To date, the primary efforts to identify the number of depository library users occurred as part of the 1983 and 1985 GPO *Biennial Surveys*. Since 1950, depository libraries have communicated with the Office of the Superintendent of Documents, through this survey, every two years. This process of communication has taken the form of a questionnaire administered by the GPO to all depository libraries.

The 1983 *Biennial Survey*, which differed sharply from any administered previously or since, included a section entitled "Statistics Collection." Questions 43–50, which are pertinent to our study, asked for data regarding the number of:

- Patrons who used the documents department
- Directional questions asked
- Reference/research questions asked
- Database reference searches conducted
- Referrals given
- Interlibrary loan requests
- Interlibrary loans filled.

Responses to these questions are one of the few sources of data specifically describing users and uses for most of the population of GPO depository libraries.

Data that address these 1983 *Biennial Survey* questions were to be provided from a five-day data collection period. Original instructions for completing these questions were included in *Administrative Notes* [no. 7 (1983): p. 2+] and then "clarified" in numbers 8 and 9. In addition, the August issue (no. 11) reprinted a *worksheet* to assist in data collection and reporting. Appendix A reprints the appropriate sections from *Administrative Notes*. It should be noted that neither the 1983 nor 1985 *Biennial Survey* clearly and fully defined the term "user".

Inclusion of questions 43–50 in the 1983 *Biennial Survey* generated controversy. Some depository librarians believed that data collection required too much effort for them to be able to answer the questions accurately. Others considered the instructions for completing the questions unclear, or simply did not recognize the importance of providing the GPO with such data. Librarians also raised questions about the reliability and validity of the management data to be collected. However, depository librarians did respond to these questions. Table 1-2 summarizes the responses to the eight questions. Clearly, academic and public libraries vary in the extent to which they participated in the study and provided answers to any one question.

Table 1-2.—Selected Summary Data from the 1983 *Biennial Survey

Question	Academic	Public	Total
43. If your library has a separate documents collection, how many patrons used the documents department in a 5-day period?	Avg. 148 (N=442)**	Avg. 69 (N=105)	Avg. 133 (N=547)
44. In a 5-day period, how many directional questions were asked?	Avg. 34 (N=691)	Avg. 34 (N=247)	Avg. 34 (N=938)
45. In a 5-day period, how many reference/research questions were asked?	Avg. 60 (N=700)	Avg. 82 (N=250)	Avg. 66 (N=950)
46. In a 5-day period, how many database reference searches were done?	Avg. 4 (N=644)	Avg. 2 (N=212)	Avg. 4 (N=856)

Table 1-2.—Selected Summary Data from the 1983 *Biennial Survey—Continued**

Question	Academic	Public	Total
47. In a 5-day period, how many referrals were given?	Avg. 5 (N=685)	Avg. 6 (N=247)	Avg. 5 (N=932)
48. In a 5-day period, how many items that the library selects were not available for use for which the library staff searched stacks and other locations?	Avg. 3 (N=671)	Avg. 3 (N=242)	Avg. 3 (N=913)
49. In a 5-day period, how many interlibrary loan requests were sent out?	Avg. 2 (N=664)	Avg. 2 (N=237)	Avg. 2 (N=901)
50. In a 5-day period, how many interlibrary loan requests were filled?	Avg. 2 (N=662)	Avg. 2 (N=240)	Avg. 2 (N=902)

*For a copy of the 1983 *Biennial Survey*, see Hernon, McClure, and Purcell (1985), pp. 196–207.
**N is the number of respondents. That number varies from question to question.

The 1985 *Biennial Survey* was much shorter than the 1983 version and did not require depository libraries to submit statistics based on a five-day sampling period. Only one question has particular interest to this study:

> Approximately how many people use the Depository Collection, either directly (in house) or indirectly (through telephone requests, ILL, etc.) in a "normal" week?

Respondents then estimated the number. Table 1-3 summarizes the responses, on a state by state basis. The 1,188 libraries responding to the question indicated that there were 167,827 users of depository libraries during a "normal" week. Based on the numbers reported from respondents, the GPO projected that, for the *entire* depository library program, there were:

- 195,214 users per week
- 10,151,165 users per year.[2]

However, it is important to remember that librarians responding to the question merely reported estimates or impressions.

It is unclear how respondents estimated the number of users during a normal one-week period.[3] For example,

- Did the estimate include users of depository publications throughout the entire library or only in a part of the library (i.e., a separate collection)?
- Were users of microfiche, maps, and other types of depository publications included?
- Was the response a "best guess" or did the librarians engage in empirical data collection?

Neither is it clear how the GPO "projected" the number of users to provide an estimate for the entire program, per week or per year.

Data collected for an arbitrarily chosen week lack the external validity (generalizability) of data gathered from a random sample of weeks throughout a year. Yet, it is too much of a burden to expect depository libraries to collect data for a sufficient number of weeks to construct a profile of users for an entire year. Any projection based on data collected for one week, be it either five or seven days, distorts management data and is impressionistic, at best.

[2] It is interesting to note that the Office of Technology Assessment (1988) reported different totals from the 1985 results. The Office projected 8,710,416 users of the 1,188 responding libraries for the year. Adjusting, somehow, for the population of depository libraries, the projected number of annual users became 10,264,800—not the 10,151,165 listed in Table 1-3.

[3] At the spring meeting of the Depository Library Council to the Public Printer (March 10, 1988), the investigators made a presentation on the study. In response to a question concerning data collection for the 1985 *Biennial Survey*, members of the audience disclosed differences in data collection methodologies and assumptions toward data collection. For example, they might have equated the number of uses with the number of users. They also collected data at widely divergent time periods or guessed the number of users. Not only are the GPO's reported totals suspect, but also no standardized procedures guided data collection.

Table 1-3.—Estimated Number of Depository Library Users as Reported from the 1985 *Biennial Survey,****

State	Number of libraries	Estimated number of users (per week)	Estimated weekly average
AL	22	3,125	142
AK	6	1,140	190
AZ	13	2,548	196
AR	18	663	37
CA	100	21,665	217
C. Zone			
CO	20	2,609	130
CT	18	2,859	159
DE	7	335	48
DC	41	5,087	124
FL	41	5,548	135
GA	15	1,305	87
Guam			
HI	11	764	76
ID	9	1,150	128
IL	44	4,197	95
IN	22	1,854	84
IA	17	2,715	160
KS	17	2,316	136
KY	18	1,525	85
LA	23	3,088	134
ME	8	1,023	128
MD	16	1,403	88
MA	28	4,465	159
MI	40	5,978	149
Micronesia	1	15	15
MN	22	4,614	210
MS	10	962	96
MO	28	2,638	94
MT	8	2,252	282
NE	14	1,626	116
NV	8	995	124
NH	8	590	74
NJ	39	3,921	101
NM	10	824	82
NY	71	7,408	104
NC	30	4,947	165
ND	8	359	45
OH	54	6,107	113
OK	18	2,214	123
OR	15	2,141	143
PA	58	9,929	171
PR	4	1,630	408
RI	9	721	80
SC	17	2,161	127
SD	9	997	111
TN	20	1,038	52
TX	55	17,228	313
UT	10	1,524	152
VT	6	1,663	277
VA	32	3,672	115
VI	8	475	59
WA	17	3,458	203
WV	14	922	66
WI	27	3,907	145
WY	8	546	68
Total	1,188	167,827	129
Totals Projected for 1,386 Depository Libraries:			
Total number of users per week			195,214
Total number of users per year			10,151,165

*Source: "Summary Results of 1985 Biennial Survey" (1985), p. 8.
**The investigators were unable to separate academic and public libraries from the original 1985 *Biennial Survey* data.

The data reported in Table 1-3 neither resulted from a formalized data collection effort nor addressed the concerns discussed in the section of this chapter, "Complexity of the Problem." Numerous questions regarding the reliability of the data and the validity of the projections can be raised. Nonetheless, the estimates represent a "first approximation" effort and, together with the results of the 1983 *Biennial Survey*, offer the only available information on the number of users of depository libraries. The limitations of such data suggest the need and importance of conducting a study to:

- Better estimate the number of users of depository materials
- Devise a data collection strategy to guide future attempts to identify the number of users.

The more consistency there is among future data collection efforts, the more likely that, over time, data can be compared and trends noted. The study described in this report attempts to explain the importance of knowing the number of users and to develop a strategy to collect data. Review and modification of that strategy may well provide the depository library community with a methodology for collecting trend data. This study deals with complex issues and draws attention to basic questions for which the Government Printing Office, its congressional oversight and appropriations committees, and the depository library community need answers if long-range planning is to occur.

STUDY GOALS AND OBJECTIVES

Dealing with a population of approximately 1,400 libraries representing different types (academic, public, state, and special) is an extremely complex undertaking. Addressing unique situations further complicate data collection. For these reasons (as well as limited funding for the study), the investigators (with the permission of the Government Printing Office) limited the study to users of academic and public depository libraries.

As specified in the original Request for a Proposal, the three study objectives are as follows:

- To identify, review, and analyze the existing literature on users and uses of GPO depository libraries
- To identify the number of users of depository libraries during a specified time period
- To categorize and compare users by library type (academic and public libraries) and selected descriptive characteristics.

Accomplishment of these objectives would allow the GPO, and the library community, to have a clearer perspective on the current users of academic and public depository library collections. At the same time, study documentation and data collection instruments can be reviewed and modified as appropriate. The result would provide a framework for generating user data on a regular basis.

A careful review of the literature regarding users and uses of the GPO depository libraries accomplishes the first objective. Chapter 2, which is based on a manual and online searching of key indexes and databases, summarizes the results of that review. An empirical data collection process accomplishes the second and third objectives. The data collection effort estimates the number of users of the depository collection of academic and public libraries and provides information on selected descriptive variables for these users. Chapter 3 describes the research design and explains how data were collected, while Chapter 4 reports study findings.

SUMMARY

Reliable management information on how many people use depository publications located in academic and public libraries, as well as a descriptive profile of the characteristics of these users, is currently not available. Yet such information can serve as a basis for better understanding the role that academic and public depository libraries play in the provision of government publications to the public. Further, such information is important in planning effective information services and products to be disseminated through academic and public depository libraries.

The Government Printing Office contracted with Information Management Consultant Services, Inc., to investigate the number and types of users of academic and public depository library publications. The GPO requested that the study be initiated in January 1988, and completed by February 15, 1989. The investigators developed, pretested, implemented, and completed a procedure (research design and methodology) that accomplished project objectives, with *limited* resources.

Completion of this study is but a first step in describing how many people use the depository collections of academic and public libraries. Future efforts can build upon this study and assist the depository library community in explaining the effectiveness and impact of depository services and collections.

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Chapter 2

Users and Uses of GPO Depository Libraries

USER VERSUS USE STUDIES

User studies identify who uses libraries, the characteristics of these individuals, and their frequency of library use. These studies might examine different demographic and socio-economic characteristics. For example, they might isolate on age, gender, level of education, race, marital status, occupation, and/or income level. Except for education level and, perhaps, occupation, the pool of characteristics infrequently reveals "the average or typical library user" (see Chen and Hernon, 1982). Researchers have also probed characteristics such as proximity of the library from one's home or place of employment, and the extent to which one is a reader (Ibid.). Although the development of a composite profile of "the library user" is difficult, certain, general insights nonetheless emerge.

User studies attempt to determine which individuals or group of characteristics, or variables, best describe or predict who are library users. In some instances, these studies have differentiated between frequent and infrequent users. User studies concentrate on the user and who that person is. Use studies, on the other hand, probe information-gathering behavior in the context of information needs and examine barriers to information gathering. Such research may investigate nonusers as well as users of a library. These studies depict the reasons for use and nonuse, as well as analyze the process by which people gather information.

User studies provide an important context for use studies. Indeed, a logical research approach is, *first*, to conduct a user study as a basis for then preparing a use study. Knowing more about the user community enables subsequent researchers to probe use related issues. Library literature is replete with studies depicting users and uses within all types of libraries. Documents librarianship, however, is not as well represented by either type of research.

Research has not focused on users of depository collections and the characteristics of these individuals. Rather, the body of research comprises use studies. Previous investigations of government publications housed in depository collections (primarily GPO collections) have generally compared general library use to that of the depository collection(s). The purpose was to place documents use within a broader context—general library use. Researchers also have examined purposes for documents use, methods for locating needed information in documents, the extent and type of assistance given by library staff, reasons for nonuse of government publications, and, occasionally, the extent of the sample's awareness and use of different depository materials and services.

Studies investigating circulation or citation patterns may identify a list of titles, agencies, or SuDocs stem numbers that received the most mention and presumably use. The insights gained from such studies have value to collection development *only* when a subject context is imposed on the list. Since differences emerge within and across disciplines, it is important to identify, for example, the use patterns of academic social scientists in comparison to other groups. It should not be assumed that one general list applies to all library types and disciplines (Hernon and Purcell, 1982). Furthermore, although the evidence is incomplete and somewhat contradictory (see Figure 2-1), a small proportion of government publications may account for the bulk of use—circulation and in-house use.

STUDIES OF DOCUMENTS USERS AND USES

This section identifies the pool of studies and discusses methodological considerations. Initially, research focused on librarian perceptions of collection users and uses. Subsequent research (since 1972) began to examine both users and nonusers. The next section highlights the findings of the various studies. Presentation of findings, however, is complicated by methodological weaknesses and variant return rates to many of the studies portrayed in Figure 2–1.

For decades, various research efforts have surveyed libraries about their collections of government publications. These surveys reflect the extent to which responding libraries collected government publications, the value that they attached to these publications, patterns in collection arrangement, common and unique methods of acquisition, and variations in administrative practices. Occasionally, these surveys probed the uses that librarians "made of government publications . . . and . . . librarians' perceptions of the usefulness of government publications as information resources" (Weech, 1978, p. 177). In a few instances, public librarians described users and characterized heavy users of their documents collection as high school or college students, and businessmen (Packard, 1967).

DeVelbiss (1956) examined use from another perspective. She investigated how users of the library at the University of California gained access to those government publications that they borrowed. She discovered that subject entries in the university library's card catalog provided the major access point. Furthermore, faculty and graduate students were more likely than undergraduates to attempt retrieval of government publications from the author catalog.

Nelson Associates (1969) surveyed users of the New York Public Library Research Libraries and reported that government publications comprised 7 percent of all the material used during the time period studied. They discovered that people holding a professional degree used government publications more than individuals having academic degrees.

Before 1972, no major study had probed documents use directly from people who were not in the library at the time of data collection. In a landmark study, McCaghy and Purcell (1972) surveyed faculty at one academic institution about their use and nonuse of government publications; they also collected data about student use and nonuse but never reported these findings. The researchers surmised that their study "might serve as a stimulus for [the completion of] other studies of the users of government publications and as a reference point to which such studies can be compared" (Ibid., p. 8). For reasons to be discussed later in the chapter, their study has not become that reference point. However, McCaghy and Purcell directed attention to an important area of research and thereby encouraged the conduct of future studies. To date, 12 studies have been reported in the published literature (see Figure 2–1).[1,2,3]

Clearly, the published research (the 12 studies and early surveys of librarians) focuses on use rather than users. Although the various studies have identified users, they have been less interested in the development of a composite profile of these users than to ascertain information-gathering behavior and to provide insights that perhaps might be useful for collection development purposes and stimulating faculty and student use of documents holdings.

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[1] The number of reported studies was identified by examining the literature review conducted by McCaghy and Purcell (1972) and updating it with an examination of Hernon (1979). For the subsequent years, we conducted an online search of the ERIC database, reviewed the CD-ROM versions of *Library Literature* and *PAIS Bulletin*, and manually checked the most recent issues of *Resources in Education* and *Library Literature*. Therefore, the literature identified in this chapter reflects the published and indexed literature through January 1989.

[2] Figure 2–1 omits citation studies that have identified patterns in the use of government publications. For a discussion of such studies see Hernon and Shepherd (1983), and McClure and Harman (1982).

[3] A type of use study has focused on bibliographic instruction and offered a case study of the success of librarians in promoting the use of government publications. In such studies, students receive a type of learning intervention and a subsequent questionnaire upon the completion of a class project. There might also be an analysis of the sources cited in student papers and the presentation of implications derived from the experience. Such research has been conducted by Berthold and Ford (1977) and Sheldon (1982).

Although the study reported herewithin concentrates on users, it might be beneficial to summarize the research base identified in Figure 2-1. The discussion therefore provides insights into both users and uses, and thereby illustrates that more is known about uses than users (and nonusers).

The 12 studies tend to examine documents users and uses at one type of institution—academic. The exception is Kahles (1982), which compares use (as measured through circulation records) between an academic and a public library. When investigators survey users about documents uses, their studies often focus on one constituency group—faculty members. Analyses of circulation records and in-house use statistics pick up other users, e.g., students. Only one study (Nolan, 1986) concentrated on documents use by students enrolled at an academic institution. The findings of this study confirm the assumption that student use should be examined in the context of course needs and faculty expectations. With two exceptions, investigations of documents use have comprised case studies that probed use at one institution. Kahles (1982) compared two libraries, while Hernon (1979) explored use at seventeen academic institutions arrayed from baccalaureate to doctoral-granting.

Figure 2-1.—Studies Depicting Users/Uses of Depository Collections and Services

Study	Type(s) of libraries studied	Return rate (%, N)	Study population	Methodology used
Cook (1985a,b)	Academic		Users of documents collection, 1982-83. Examined manual check-out records at Arkansas State University, 1980-83.	Analysis of circulation records and in-house use data.
De Meo (1985)	do	30.9% (25 respondents).	Systematic sample of full-time faculty at South Florida Library, Tampa.	Mailed questionnaire.
Fraser & Fisher (1987)	do	41% (137 respondents).	UCLA science and engineering faculty.	Do.
Hernon (1979)	do	74.4% (683 respondents).	Full-time faculty in economics, history, political science, and sociology at 17 Midwestern academic institutions.	Mailed questionnaire and follow-up interviews.
Hernon & Williams (1976)	do	51% (218 respondents).	Full-time faculty at University of Nebraska at Omaha.	Mailed questionnaire and selected interviews.
Kahles (1982)	Academic and Public.		Systematic random sample of 1981 circulation records at Chicago Public Library and University of Illinois, at Chicago, Library.	Analysis of circulation records.
McCaghy & Purcell (1972)	Academic	89% (103 respondents).	Faculty who use the Freiberger Library, Case Western Reserve. They sampled one-third of faculty in the social sciences and humanities.	Mailed questionnaire.
McIlvaine (1975)	do	12.3% (120 respondents).	Attached survey form to monthly list of new acquisitions distributed to interested faculty.	Do.

Figure 2-1.—Studies Depicting Users/Uses of Depository Collections and Services—Continued

Study	Type(s) of libraries studied	Return rate (%, N)	Study population	Methodology used
Nolan (1986)	...do	65.9% (130 respondents).	Random sample of undergraduates in political science, history, and economics at Claremont Colleges.	Do.
Sears & Moody (1984)	...do		For 1 year period (1981-82), data collected on titles reshelved and circulated at Miami University.	Analysis of circulation records of faculty and students, and in-house reshelving statistics.
Watson & Heim (1984)	...do		Survey of users who borrowed documents during 2½ month period in 1983; and circulation records for same period.	Forms completed by users (no record of return rate) and of circulation records.
Wilson (1973)	...do	58% (100 respondents).	All full-time teaching faculty at Trinity University.	Mailed questionnaire.

Sources:

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Survey research provides self-reported data on faculty or student use and nonuse of government publications, but not necessarily those publications received as part of the GPO depository program. One limitation to self-reported data is that they may produce systematic bias in certain of the responses and inflate the role of government publications in meeting information needs. The wide variation in return rates may also introduce bias. This is especially true for the studies with small return rates.

Two studies used a mailed questionnaire as well as probed faculty information-gathering behavior through selected in-person interviewing (Hernon and Williams, 1976; Hernon, 1979). Interviewing served, in part, as a necessary validation of questionnaire responses and as a check on self-reporting.

Four studies employed alternative means of data collection. Kahles (1982) analyzed a random sample of circulation records and encouraged subsequent investigations to use supplementary data collection techniques. Sears and Moody (1984) examined circulation records and the use of in-house material. Watson and Heim (1984) distributed a brief questionnaire to faculty and students, and analyzed circulation records. Cook (1985a, 1985b) conducted a study

of in-house use and analyzed circulation records. He opined that circulation records provide a convenient way to learn more about library users and patterns of documents use. However, he did not compare alternative methods of data collection. Rather, he favored convenience as the key factor for determining use patterns,[4] but cautioned that any analysis of circulation patterns must honor borrower privacy (1985b).

The existing base of research using circulation records and counts of in-house use has not sufficiently placed use of academic depository collections in the context of users, their academic disciplines and specialties, and subject areas. In effect, we see what has been used and how often, but we gain no insights into either the users themselves or nonusers. Therefore, few specific guidelines for collection evaluation and weeding emerge. It appears, though, that (Sears and Moody, 1984, p. 111):

> government publications have a low rate of use compared to the overall size of the documents collection. Publications of the Bureau of the Census, the Bureau of Labor Statistics, other statistical and reference titles, and congressional publications accounted for a large amount of the materials used. A relatively small number of publications satisfied the majority of patrons' needs.

Most noticeably, none of the studies have been replicated. In effect, we see use patterns at one point in time at selected institutions and do not observe trends over time. Clearly, replication should become an important feature of future studies.

Extensive comparisons among the campuses investigated in the 12 studies are difficult to make given the differences in sampling procedures, return rates (ranging from 12 to 89%), and modifications in survey instruments. There were also variations in data categorizations, questionnaire emphasis, and the method of counting circulation records and in-house use. Questionnaires were modified to meet local needs, and not all questionnaires were subjected to pretesting. When studies have probed circulation patterns and in-house use, the question becomes "Do such methods adequately reflect use of government publications, particularly those received through the GPO program?"

As background to the recent report of the Office of Technology Assessment, *Informing the Nation* (see Note 2, Chapter 1), the General Accounting Office (1988) surveyed depository and nondepository libraries about *Federal Information Users' Current and Future Technology Needs*. For responding regional depositories, selective depositories, and nondepositories, the GAO summarized librarian perceptions about the "general subject material of Federal information that . . . [their] library currently uses or has used during the past 12 months." The GAO also probed the sources from which libraries acquire Federal information, the types of equipment in place in the libraries or planned for purchase, and selective future needs or preferences. Survey findings provide librarians' general impressions of the use made by their clientele, without collecting data directly from the information-gathering public.

Rubin's (1986) extensive examination of in-house use, although not aimed at documents collections, becomes the yardstick against which in-house use might be measured in the future. He assessed different methodologies, ones that might be applied to depository collections. Studies of in-house use though focus on use patterns, not the compilation of user information. His study reminds us that use must be carefully defined and that use may occur within different contexts: borrowing of materials through circulation or interlibrary loan, the asking of reference questions, or the use of material in-house. Combining these different facets produces a more complete picture of *actual use*. Survey research deals with reported use but does not display the information-gathering behavior actually practiced. Chapter 3 addresses the significance of these findings to our study. That chapter also stresses a criterion emphasized by Cook (1985b, p. 227)—the ease of data collection. The more difficult that staff members find data collection, the less likely that they will be to participate in it and produce data useful for planning and decision making.

[4] According to Cook (1985b, p. 224), "circulation data will not be a valid indicator of use of materials that are briefly consulted and reshelved."

COLLECTIVE FINDINGS FROM THE RESEARCH DEPICTED IN FIGURE 2-1

Users

The variables describing users include academic department and speciality, academic rank, the percentage of time involved in different activities (teaching, research or scholarly writing, administrative duties, and other), the class level of students taught, involvement in sponsored and nonsponsored research, and frequency of library use. However, the researchers analyzed these variables to depict patterns of use and nonuse, not to develop a profile of users.

Hernon (1979) found that among the academic social scientists surveyed, economists and political scientists accounted for the largest percentage of heavy and moderate users of government publications. Sociologists almost evenly divided among heavy and moderate users, and limited users and non-users. On the other hand, only 40 percent of the historians were heavy or moderate users.

In his study of undergraduate use, Nolan (1986) examined the variables of student major, class level, and frequency of documents use. He suspected that "the variable *class* may have been a hidden factor in tables purporting to show a statistically significant relationship between major and another variable" (p. 421). Institutional variables were not explored since the investigation comprised a case study of undergraduate use at one institution.

Purpose of Documents Use

A major reason for academic social scientists' use of documents, regardless of discipline, is to obtain census or normative data. Economists rated "current events and issues of interest" third among eight categories of purposes for which they use documents. Political scientists listed this category first along with census or normative data. Both sociologists and historians listed this category fourth. However, elsewhere in the questionnaire used by Hernon, academic social scientists were asked about the ages of the documents that they consult most often. Except for historians, they mainly seek current publications produced within the last three years. Economists, political scientists, and sociologists have a wide range of purposes for which they use current publications. They use them for census or normative information, current events and issues of interest, research and technical reports, and resources of value to students (Hernon, 1979; Hernon and Purcell, 1982).

Undergraduate use of government publications is directly related to coursework and then students must suspect that documents "would be a good source for meeting their needs" (Nolan, 1986, p. 419). To be expected, graduate students use documents for thesis related research. However, as McClure and Harman (1982) caution, the amount of thesis related use might be characterized as limited. Due to lack of awareness and perhaps other reasons, graduate students do not cite government publications as frequently as they might.

Fraser and Fisher (1987, p. 43) suggest that implicit in the probing of the purpose behind documents use is the premise "that government documents are indeed valuable." As they note,

> on the surface, . . . this would seem to go without saying, however, the data gathered here appears to throw some doubt on that premise. If this information is so valuable, why aren't . . . faculty making better use of it in both their research and teaching?

This question has significance for the study reported in Chapters 3 and 4. It must be remembered that libraries comprise one of many information providers. When people have information needs, they might not turn to libraries (Chen and Hernon, 1982). Fraser and Fisher (1987, p. 43) may well be correct that a library's constituent groups need "greater awareness . . . as to the content and value of government publications." However, such a conclusion is beyond the scope of this study to verify.

Methods for Locating Needed Information in Documents

A comparison of the methods used to locate documents showed that regardless of discipline,

academic social scientists rely extensively on the monographic, periodical, and bibliographic literature of their discipline for awareness of what the Federal government issues. Mailing lists constitute the second most frequently mentioned source of reference for economists and sociologists seeking current Federal information. These mailing lists allow them to receive not only lists of new publications but, sometimes, also the publications themselves and ephemera. With these sources of information they can keep abreast of new developments and policy changes. Historians, on the other hand, are the most likely to draw upon libraries for assistance. They rated assistance from library staff members as a third priority technique, while other academic social scientists listed staff assistance much lower (Hernon, 1979).

Academic social scientists frequently do not rely on one single method for locating needed government publications or information. It is not uncommon for them to use different methods, depending on such factors as the purpose for which the publications are needed and the recency of the published information. Apparently, many of them do not engage in extensive literature searches to uncover all the potential source material on a given topic (Hernon, 1979). Instead, they rely on agencies and sources already familiar to them or confine their searches to a few types of government publications (so too do scientists and engineers). Furthermore, social scientists may check the library's central card or online catalog to see what source material might be available on the topic. Sometimes, they may not search beyond this; they might even assume that the catalog reflects the comprehensive holdings of the library.

Hernon and Williams (1976) discovered that the majority of faculty respondents learned to find government publications through self-instruction—a process of trial-and-error, sometimes combined with information instruction from a librarian. The means by which they learned to locate publications had little relationship to the frequency of documents use, since the percentage of those who learned by trial-and-error and who also used documents frequently (34%) was nearly the same as those who learned through a formal course (37%) or through informal instruction by librarians (35%).

Although based on limited evidence, it appears that undergraduates identify "a document as being of value to them through the intercession of a librarian, i.e., by asking for information on a particular topic and discovering a document of relevance through the reference interview process" (Watson and Heim, 1984, p. 285). They might also locate relevant documents through faculty referral, an index, a card catalog, or an online catalog. In contrast, graduate students and faculty "show a broader range of finding techniques . . . , rely less on the subject approach to the card catalog, and are much more frequently looking for known items" (ibid., p. 286). Watson and Heim surmise that "cataloging documents is likely to maximize use by the largest segment of the university user population" (p. 289).

Extent and Type of Assistance Received from Library Staff Members in the Use of Documents

Library users, regardless of the frequency of their documents use, are likely to request assistance only occasionally. Perhaps half of the documents users request assistance only "some times," while another 25 percent need assistance "frequently."

Academic social scientists are as likely to request assistance in locating specific documents as they are to request reference assistance (i.e., aid in finding materials or information to answer a specific question or solve some problem on which they are working) (Hernon, 1979). Clearly, academic social scientists have diverse needs and interests, and various problems emerge in their search for government publications and information.

McCaghy and Purcell (1972) found that most of the users of the documents collection expressed satisfaction with the assistance given by the library staff members. Similarly, Hernon (1979) discovered a small percentage (7.2) of faculty members who are reluctant to request assistance in using the documents collection.

Reasons for Non-Use of Documents

McCaghy and Purcell (1972) revealed a significant rate of faculty nonuse (62%) for the library's documents collection, while Wilson (1973) found that only 32 percent of survey respondents made no use at all of Federal documents. For Hernon and Williams (1976), the percentage of faculty nonuse was 31. The difference may be accounted for by the fact that, in their total, McCaghy and Purcell included faculty members who used other libraries and who obtained personal copies of government publications. They also sampled faculty members randomly and excluded science faculty members, while including those in the humanities. Faculty use and nonuse of government publications must be judged in relation to faculty utilization of other library resources and to the efforts of campus librarians to promote usage of library resources.

The difference in percentage of documents nonuse may suggest that non-respondents are, in fact, nonusers. On the other hand, the difference may be accounted for by the divergence in response rates. A distinction must be made between nonusers of the library's documents collection and nonusers of government publications. Some faculty members use documents held by other libraries, or they own personal copies of documents. As only McCaghy and Purcell (1972) and Hernon (1979) reported this distinction, comparisons among studies are further impaired.

The most important, self-reported reasons for nonuse are that

- Government bodies publish little or nothing of value to the subject specialization of academic social scientists.
- Faculty are unaware of, or unfamiliar with, the existence and organization of the documents collection.
- Too much time is required to gather needed government information.

During the interview phase of the Hernon study (1979), academic social scientists elaborated on the time factor, stating that they do not always need government publications for their teaching—that, instead, they rely on current, capsulized information found in newspapers, periodicals, and loose leaf services. Government publications, some reported, provide in-depth coverage, but it may be too time-consuming to extract the few pieces of pertinent information. A related problem is that because the Federal government publishes so extensively it can be difficult to locate the few publications most beneficial to the immediate needs of faculty members.

With the advent of CD-ROM and special packages that the private sector has developed (e.g., machine-readable versions of the *Monthly Catalog of United States Government Publications*), it may be quicker to identify a pool of titles that might have potential appeal. The problem, though, is that the library may not hold all the titles and that the user would have to either visit other depositories or use interlibrary loan services. Interlibrary loan does not always produce requested source material in a timely manner.

The overwhelming reason for nonuse by undergraduates is that they did not (or thought that they did not) need documents to fulfill course requirements (Nolan, 1986, p. 419). Students may not be required to research a topic and produce a paper citing government publications, or the U.S. government might not publish material pertinent to the course or the assignment.

Which Documents Are Used

The studies that analyze circulation records and monitor in-house use patterns identify types of publications that patrons either borrow or examine internal to the library. Conflicting findings have emerged due to differences among the institutions studied and the methodologies employed. Such studies have not developed a conceptual approach that yields data meaningful for collection development. The studies have not sufficiently placed total uses within the context of academic departments or information needs (see Chen and Hernon, 1982; Hernon and Purcell, 1982). Neither have such studies attempted to match their findings to survey and other data (e.g., Hernon and Purcell, 1982).

Hypotheses

Typically the research has not engaged in hypothesis testing. Or, where the research has, there might be some design problems with the investigation or a low response rate. A number of hypotheses, however, have been tested and either supported or rejected, but only in the context of academic library users and uses. Low return rates and other factors discussed in this chapter, in fact, complicate a determination of whether or not a hypothesis can be supported. Support or rejection of a hypothesis may be related to cell size and other factors. It is important to know not only that there is statistical significance but also the strength of that significance. These points must be remembered when evaluating the following hypotheses. Clearly, these hypotheses merit further examination and not mere acceptance.

Those Rejected

Use

- Highest degree offered by the academic institution is a statistically significant factor in documents use
- Library variables such as collection arrangement, classification scheme used, percentage of depository items received, documents entered into public card catalog, and staff size have an impact on faculty use
- Frequency of library use is a good indicator of frequency of documents use
- There is no statistically significant difference in the incidence of use of the library's documents collection between faculty members in one discipline and those in any of the other disciplines
- The variables of frequency of library use, discipline, or highest degree offered are not statistically significant factors for determining whether a social scientist is currently engaged in, or completed within the past year, a scholarly activity intended for publication that cited a government publication(s) in the bibliography or footnotes
- The tendency to cite government publications in bibliographies and footnotes is an accurate indicator of library use. (However, citations provide an indication of verifiable documents use).

Those Supported

Users

- Faculty members at baccalaureate and master's-granting institutions are as likely to use government publications as those social scientists situated in doctoral-granting institutions

Use

- There is no statistically significant difference among faculty members as to how they learned to find materials in the documents collection
- There is no statistically significant difference across discipline, highest degree offered, or institutional control as to the levels of government of which publications are used
- There is no statistically significant difference between faculty members engaged in sponsored research projects and those who are not as to their use of computerized search systems that access government information contained in bibliographic or numeric databases
- There is no statistically significant difference between the source of funding and whether or not machine-readable databases are searched
- Academic social scientists do not differ significantly across highest degree offered or discipline as to the specific search system(s) used
- Social scientists at doctoral-granting institutions profess a greater awareness of indexes and other retrieval tools than do their counterparts at baccalaureate and master's-granting institutions
- There is no statistically significant difference among faculty members as to their reasons for limited use and nonuse of government publications
- Faculty members in one discipline do not differ significantly from those in any of the other disciplines as to the purposes for which they consult government publications

- In collections where the library card catalog is used as a means of collection access, the subject section is the primary means of access
- There is no statistically significant difference between the frequency with which faculty members ask library staff for assistance and any reluctance on the part of faculty members to request assistance
- Social scientists do not differ significantly according to discipline or highest degree offered as to the kinds of assistance that they ask from the library staff
- Social scientists are no more likely to approach library staff for assistance in locating a specific document than they are to request reference assistance
- Social scientists do not differ significantly across disciplines or institutions as to their means of locating needed government publications. (For access to government information held in the library, they rely primarily on the public card catalog or citations to documents found in the general literature or special bibliographies of their subject field)
- There is no statistically significant difference among faculty members as to how they learned to find materials in the documents collection
- Current publications (defined variously, i.e., last decade or past three years) receive more use than older titles.

CONCLUSION

The published research has focused on documents use rather than offering a detailed profile of users. The research has identified the extent of general library use in comparison to use of government documents collections, the reasons for use and nonuse of government publications, and the impact of *personal, institutional,* and *library* variables on use. The studies tend to concentrate on academic institutions and their faculty. Users and uses of public libraries have not been reported, and research has not drawn comparisons between users and uses of academic and public libraries.

Personal variables include department, subject area of teaching, and extent of involvement in research, teaching, and administration. Typical *institutional* variables are highest degree offered and type of institution (public or private). *Library* variables are collection organization and arrangement, the offering of programs that might increase public awareness of documents, the number of personnel servicing documents collections, the extent that government publications are entered in card catalogs, percentage of item numbers received, circulation of documents, location of depository materials in the library, and classification scheme employed.

Use, not users, provided the conceptual basis for the studies depicted in Figure 2–1. In spite of the body of research on depository library use, little is known about users—who they are. Librarians, educators, researchers, and policy makers can neither describe nor estimate who is or is likely to be a user of the depository library program administered by the Government Printing Office. Further, research has neither adequately compared users across types of depository libraries nor applied Rubin's approach (1986) to an analysis of in-house documents use.

The literature review reported in this chapter serves as a reminder that a study documenting users must employ different methodologies aimed at discovering and monitoring users at various service points within a depository library. The resulting picture will provide the most complete snapshot of the number of depository users to date. The study reported in the following chapters offers a foundation from which subsequent research can build.

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Chapter 3

Study Design and Methodology

This chapter presents the research design for the study. As part of that design, the chapter explains the process used to identify the libraries from which data were collected. In addition, the chapter discusses the methodology employed for data collection and describes the data collection instruments. Chapter 4 summarizes study findings.

The selection of an appropriate research design is based, primarily, on (1) the study objectives, (2) the specific data needed to address the research questions, and (3) the resources available to conduct the investigation. The research questions (based on the study objectives described in Chapter 1) are:

- What is the number of users of academic and public depository publications for a specified time period?
- What are selected characteristics of these users—
- Gender
- Educational level
- Occupation (for public library users)
- Academic status (for academic library users).

The study develops a methodology for portraying the number of users for all academic and public libraries participating in the depository program. For the study, the investigators, with the concurrence of the Advisory Board, selected a user ticket survey, combined with the completion of a log to count users of in-house depository publications and a general depository information form, as the most appropriate techniques for a national data collection effort. Figure 3–1 presents an overview of the research design.

ASSUMPTIONS AND LIMITATIONS

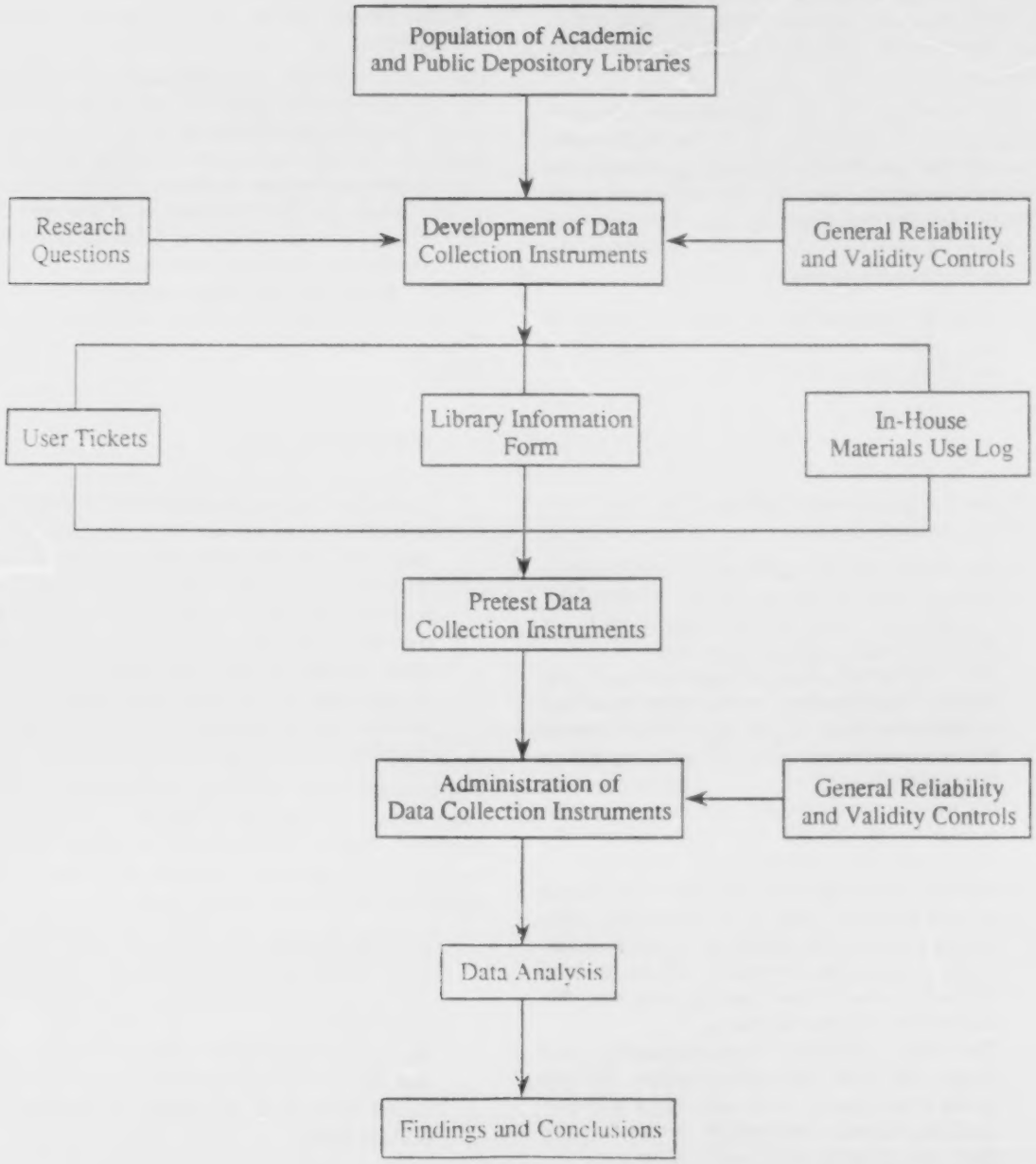
In conducting a study such as this, the investigators assumed that:

- Depository libraries adhere to GPO specifications and accession those government publications received on deposit with an identification/acquisitions stamp
- They will not include any government publication requested by interlibrary loan that is identified with a PB, or another type of NTIS accession number, or with an ED or EJ number
- Microfiche users might consult a support service such as the one operated by the Congressional Information Service or Readex. Libraries may purchase a duplicate or replacement copy of a depository title, through either the public or private sector. In both instances, the users will be counted
- Self-administered user tickets may underestimate the number of users
- The more complex, time-consuming, and longer the data collection process, the less likely that library staff and users will participate, thereby increasing the probability that poor quality data would emerge
- Users may make multiple uses of depository publications and services; the number of users will be less than the number of uses
- A sufficient number (and distribution by geographical region and library type) of depository libraries will participate in the study. (Based on past successes of the GPO in soliciting survey data from depository libraries, the investigators anticipated an acceptable response rate—at least 70%).

Further, the study collected management rather than research data (see Chapter 1 for the distinction). Based on evidence compiled from a number of other user studies, it is likely that the study has the following *limitations*:

- It is impossible to capture *all* user contacts with depository publications and services
- Users may inadvertently be counted more than once
- All possible locations where users may consult depository publications cannot be monitored; thus, it is important to monitor *key* service points

FIGURE 3-1
OVERVIEW OF RESEARCH DESIGN



- User tickets can only be administered effectively at times that staff are present at the service points
- In some depository libraries, closed stacks may inhibit the completion of an assessment of in-house materials use
- Depositories that totally integrate their holdings may experience problems in the identification of users and monitoring in-house use of depository publications
- Some depository library staff members and users may not wish to participate in a study, may choose *not* to complete user tickets, or otherwise not cooperate with data collection activities.

Users were identified and counted in terms of specific uses that they made of depository publications and services. The focus is on users, not on their uses or the time involved in meeting an information need. The study is not concerned with outcomes, the resolution of information needs or patron satisfaction.

As suggested in previous chapters, completion of the study involved addressing complex issues and making decisions resulting in a series of trade-offs. Limited funding and the need for more than 1,000 libraries (and various staff in those libraries) to collect data placed constraints on the design of the study. The research design developed for this study recognized the difficulties inherent in completing a national user study and attempted to build in as many safeguards as possible to ensure the collection of data demonstrating reliability and validity.

KEY DEFINITIONS

Five definitions were central to the completion of data collection and implementation of the design depicted in Figure 3-1:

- *A depository publication* is *any* paper copy, microfiche, or map that the GPO has distributed to the library as part of the depository program. The library has probably marked the publication or microfiche jacket with an ownership stamp. In addition to the copy received on deposit, a library may purchase duplicate or replacement copies of the *Statistical Abstract of the United States* and other basic titles. Use of duplicate or replacement copy for titles listed as a GPO sales item will be counted as a depository publication, so too will CIS and Readex microfiche. The focus is on the title rather than the particular copy
- *A depository service* refers specifically to a service point where the patron seeks access to information contained in a depository publication. If staff members, for example, supply an answer from a depository publication, then this use falls within the scope of the study
- *User of a depository publication or service* is an individual who comes into contact with a depository publication. The contact may be through a library staff member, i.e., telephone reference service or staff supplied answer from a depository publication. Use of any index or other reference tool that is privately published (e.g., the *Index to U.S. Government Periodicals* or the *American Statistics Index*), by itself does not result in the identification of a user. To be a user, that person would have to consult a source identified in the reference tool, request a source through interlibrary loan, or have a staff member use a depository publication. However, those individuals consulting Readex or CIS microfiche would comprise users
- *In-house use of a depository publication* encompasses consultation of a depository publication in the reference collection, open and closed (where clientele are permitted access to publications) stacks, or a microforms or maps collection. Such activities as briefly looking at a depository publication while standing at the shelves, or scanning microfiche or a map, comprise a "use." However, the present investigation examines use only as a means of identifying users
- *A reference question* is one that involves the use of a depository publication. If a ques-

tion results in either library staff members using or directing a patron to a depository publication, then staff members complete the data collection instrument.

These definitions are based on the writings discussed in Chapter 2 and discussions at the Advisory Board meeting of March 10, 1988 at the Depository Library Council to the Public Printer.

Appendix B reprints the instructions to libraries participating in the study and amplifies on definitions, assumptions, the standardization of data collection, and data collection procedures. The data reported in the next chapter must be viewed in the context of the constraints specified in this chapter and Appendix B.

STUDY POPULATION

Based on an examination of *A Directory of U.S. Government Depository Libraries* (Congress. Joint Committee on Printing, March 1987), the investigators identified 770 academic and 284 public libraries. Some 1,054 academic and public libraries participate in the depository program.[1] Table 3-1 indicates the distribution of these libraries based on the geographic regions used by the U.S. Bureau of the Census (see Figure 3-2).

Table 3-1.—Study Population

Region	Academic (N=770)	Public (N=284)	Total
West*	134	73	207
Midwest	209	84	293
South	268	53	321
Northeast	159	74	233
Total	770	284	1,054

*The region "West" as used in this study includes the Census regions West and Pacific.

[1] The total of 770 academic and 284 public depository libraries identified from *A Directory of U.S. Government Depository Libraries* (Congress. Joint Committee on Printing, 1987) varies slightly from 765 and 278 identified in Hernon, McClure, and Purcell (1985) and reported in Table 1-2. The explanation for this discrepancy is probably the actual change in the composition of academic and public libraries in the depository program in the past five years. The discrepancies between the two sets of numbers are not significant. The population used for this study is 770 academic libraries and 284 public libraries.

FIGURE 3-2

REGIONS AND CENSUS DIVISIONS OF THE UNITED STATES

The investigators considered the possibility of sampling from the population rather than attempting to collect data from *all* academic and public depository libraries. However, to estimate the number of users at nonresponding libraries, the size of the sample would have to include a substantial portion of the population (Slonim, 1960). Because of this, the investigators asked all 1,054 academic and public depository libraries to participate in the study.

The investigators constructed a machine-readable database of academic and public depository libraries and entered data for the following variables:

- Library name
- Depository library identification number
- Host state
- Census Bureau geographic region.

In addition, for academic libraries, they added data regarding institutional student enrollment, library budget, highest degree offered, and number of library staff. For public libraries, data regarding library budget, population served, and number of library staff were included. The *American Library Directory, 1986-1987* (1987) was the primary source for identifying the data for the above mentioned variables.

One reason for constructing the database was to generate more recent descriptive data than those reported in Hernon, McClure and Purcell (1985) regarding the academic and depository library population included in this study. A second reason was to generate a list of those libraries that would be asked to participate in the study. Finally, the variables in this database served as a means of checking the degree to which those libraries participating in the study were representative of the larger population (external validity). The purpose was to estimate the number of users in non-responding libraries. This aspect of the study is discussed in greater detail in the "Quality of Data" section, presented later in the chapter.

IDENTIFICATION OF THOSE PERSONS TO BE COUNTED

Figure 3-3 offers a graphic depiction of the people to be included in the study. Library clientele who enter an academic or depository library may or may not use depository library services and publications. This investigation studied only those users at library service points most likely to contain depository publications or provide depository reference service. At some of these service points, in addition to counting the number of users, librarians also collected background information about the users' characteristics.

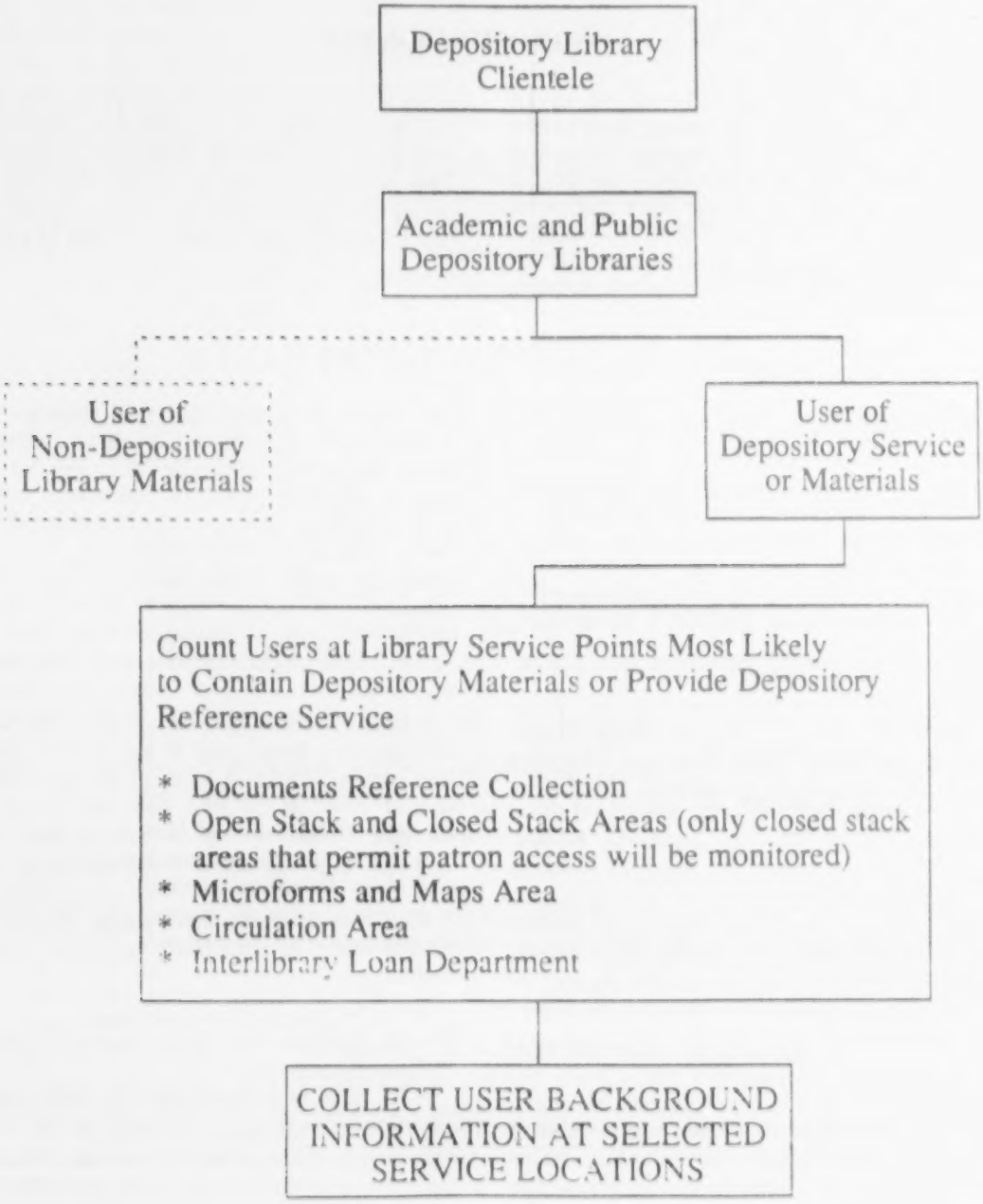
It is impossible for library staff to monitor *every* user and identify everyone who actually used depository publications and services. Complicating matters, libraries may scatter depository holdings through different departments and branches, or they may integrate all or part of their documents into their general collection. Moreover, because the location of service points for depository publications varies among participating libraries, each library had to decide where to collect the required data.

For these reasons, the approach outlined in Figure 3-3 is the strategy for identifying those people to participate in the study. Library staff members can count those people:

- Who come into the library and contact depository publications and services
- Outside the library who request information contained in depository publications (telephone or mail reference service) or who seek a depository publication on interlibrary loan.

The service points most likely to contain depository publications or provide depository reference service would be the general reference and/or documents department—the location of the central depository collection, microforms room, depository maps service area, circulation desk, and interlibrary loan office. Service points in the libraries surveyed may include subject divisions as well. Monitoring the use of depository publications in libraries that totally integrate holdings is complex and places an added burden on staff. The opportunity for an undercount is greater in such instances.

FIGURE 3-3
IDENTIFICATION OF THOSE PEOPLE TO BE STUDIED


Depository Library Clientele
Academic and Public Depository Libraries
User of Non-Depository Library Materials
User of Depository Service or Materials
Count Users at Library Service Points Most Likely to Contain Depository Materials or Provide Depository Reference Service
* Documents Reference Collection
* Open Stack and Closed Stack Areas (only closed stack areas that permit patron access will be monitored)
* Microforms and Maps Area
* Circulation Area
* Interlibrary Loan Department
COLLECT USER BACKGROUND INFORMATION AT SELECTED SERVICE LOCATIONS

There is great variation in service arrangements among depository libraries. For example, not all depository libraries have open stacks. Often, those with closed stacks do not permit browsing. Therefore, not all libraries would be able to compile a record of in-house users. In addition, some libraries merge different service points, while other depositories offer the gamut of services depicted in the figure.

ADVISORY BOARD

The Advisory Board assisted in an initial review of the research design and data collection process. The members received a draft of the first three chapters of the report the first of March, 1988, with a request for their comments and suggestions. They offered numerous suggestions and met with the investigators at the spring 1988 meeting of the Depository Library Council to the Public Printer. After that meeting, they reviewed the revised data collection instruments and offered additional suggestions. They also participated in the pretest of the data collection instruments. In January 1989, they had an opportunity to review a draft of Chapter 4.

DATA COLLECTION INSTRUMENTS

The study relied on three types of data collection instruments:

- Depository library information form (one to be completed by each depository library)
- User tickets
- In-house materials user log.

The following sections discuss each instrument.

Depository Library Information Form

The purpose of this form was to gather up-to-date descriptive data on each depository participating in the study. These data can provide a context that may assist in making information on the number and types of depository users more meaningful. The 11 questions elicited basic information about the depository collections and administration of the data collection process. The information necessary to answer these questions was readily available to depository librarians and required a minimal level of effort to report. (Appendix C reprints the form.)

User Ticket

At each library participating in the study, either a staff member or a user himself/herself completed a user ticket. Appendix D contains the academic library version of the ticket, and Appendix E prints the public library version of the ticket. The only difference between both tickets is in the occupational characterization of respondents. For academic libraries, the focus was on academic status, as opposed to the general occupation category listed in the public library user ticket. The occupational characterization for public library users was based on the scheme developed and used by the U.S. Bureau of Labor Statistics, Department of Labor. Appendix F explains the Bureau's occupational groupings.

It should be stressed that public library user studies have frequently found gender, occupation, and educational level to be good descriptors of those people who visit the library. The Advisory Board believed that these three variables would provide useful descriptive information about depository users.

Both the academic and public library user tickets could be completed via three different techniques:

- By the user (self-administered)
- By the user with the assistance of the staff (staff-assisted)
- By staff members (based on their observation).

Descriptive information on the individual was collected only in the first two instances. Staff members at the various service points encour-

aged patrons to complete the user tickets. They were instructed, if necessary, to ask patrons the questions and record appropriate responses on the user ticket.

When staff members assisted patrons with the user ticket, the staff were encouraged to elicit background information on users. At academic institutions, staff members who completed tickets based on observation only were instructed to indicate the gender of the user and whether that person was a faculty member, student, etc. In those instances in which staff members were unsure of status, occupation, or educational level, they were instructed to leave the category blank and not guess. The investigators recognize that a number of completed user tickets could contain no information other than the fact that an individual used a depository publication, for example, at the documents reference desk. It was not always possible to obtain background information about a user because either the person did not want to provide such information or the library staff member was too busy to assist the user in completing the form. In such cases, the user or the staff member was instructed to complete the user ticket to the extent that the ticket noted that a person (male or female) used a depository publication.

To recap, libraries distributed user tickets at those locations where staff members serviced government depository publications. Staff members were asked to: (1) have users complete the user ticket, (2) assist them in completing the ticket, or (3) complete the ticket for the user. Thus, staff members were instructed to:

- Monitor the number of users asking reference questions in-person, by telephone, or by mail, and to complete a user ticket, either themselves or in conjunction with the users. Completed tickets should include as much data for each user as possible. Minimally, they should indicate that a user made contact at that service point with a depository publication
- Count the number of interlibrary loan requests for depository publications. Whenever a request is made, staff should compile the data requested on the user ticket. When the document sought has an identifiable NTIS or ERIC retrieval number, that publication is not counted. When a library handles requests for borrowing depository publications from other institutions, whether formally or informally, staff should complete a user ticket for each transaction.
- Count all United States depository government publications that are borrowed and complete the user ticket for each request. When the document sought has an identifiable NTIS or ERIC retrieval number, that publication will not be counted.

Completed user tickets could (and often did) indicate multiple uses for each user. Such information is an acceptable component of the data collection process.

The intent of the user ticket was to provide a data collection instrument that either library staff or users themselves could complete simply and quickly at a number of different library service areas.

Participation in the study called attention to government publications distributed through the depository program. Undoubtedly, many library staff members became aware of depository documents and promoted their use, at least during the week of data collection. To the extent that this phenonemon occurred, the study may have compensated for possible undercount of users.

In-House Materials User Log

The in-house materials user log (see Appendix G) was administered at those library areas where depository publications were located but were not directly serviced by staff. For example, a depository library may have a government microfiche reading room or an open stacks area in the documents department. Library staff administered the in-house materials user log in such areas. However, some libraries might not have such areas or might have an inadequate number of staff to administer the log. Therefore, it was expected that some libraries would not be able to complete the in-house materials user log.

Following the written instructions (see Appendix B), documents librarians at each depository library determined those library areas in which to observe via the in-house materials user log. The purpose of this data collection activity was to include, as part of the overall count, those

Rubin (1986) compared various methods to measure in-house materials use. In addition, *Output Measures for Public Libraries* (Van House et al., 1987) reported a process for collecting data on browsing and in-house use that has been extensively reviewed and pretested. The difference between that instrument and the one used in this study is that our investigation examined the number of users as opposed to the types of uses made in the library. Thus, while our data collection process was based on work done by both Rubin and Van House et al., some minor modifications of their procedures and logs were necessary.

ADMINISTERING THE DATA COLLECTION INSTRUMENTS

Data collection for a longer time period was considered too much of an imposition on library staff and might adversely affect data collection. Staff might not have the time to monitor data collection as carefully as they would like.

In April 1988, members of the Advisory Board, together with staff at the GPO, reviewed the data collection instruments and the instructions. They also commented on the nature of signage that the GPO should supply. Based upon their comments, the instructions and data collection instruments were revised.

In mid-May, 1988, the investigators mailed the revised instructions and data collection instruments to six pretest sites: Kennesaw College Library (Marietta, Georgia), Milwaukee Public Library (Milwaukee, Wisconsin), Oklahoma State University Library (Stillwater), St. Louis Public Library (St. Louis, Missouri), University of Utah Library (Salt Lake City), and University of Nevada (Reno) Library.

At the six pretest sites, the staff reviewed the instructions and conducted actual data collection. The purpose was to identify potential problems in the forms, regarding format and content. The staff were also asked to comment on the ease of data collection and the level of participation and cooperation from users. The staff

well constructed data collection instruments, can provide adequate response to produce useful data for decision making (ibid, pp. 15-16).

also considered problems that someone unfamiliar with the study might have in following the instructions and completing the data collection instruments.

By the middle of June, the investigators received the results of the pretest. The process had gone smoothly and did not reveal any substantial problems with the instructions, depository library questionnaire, the user log, and patron willingness to cooperate. Based on the comments received, the user tickets were reformatted and the occupational characterization of users of public library depository collections was revised. Questions on the revised user tickets were clarified and made easier for users to check. The "Location" question was moved to the bottom of the form for staff members to precheck.

The pretest also disclosed that all libraries could not collect data the same week. The school year for academic institutions operating on a quarter term might not begin until early October. For this reason, the investigators encouraged participating libraries to collect data either from September 26 to October 2, or from October 3 to October 9. However, under some circumstances, data collection might occur during another week of October. The depository library questionnaire asked for the number of days that data collection occurred and the precise week of data collection.

On June 23, 1988, copies of the instructions, data collection forms, and signage were mailed to the GPO for printing and distribution to the participating members of the depository library program. A letter specifying "Printing Requirements and Schedule" accompanyed the packet.

Despite the extensive pretesting, the investigators and the Advisory Board recognize that problems could occur in the administration of a set of data collection forms to 1,054 libraries. For this reason, depository librarians were encouraged to call a member of the Advisory Board, one of the investigators, or the GPO, if questions arose.[3]

[3] In fact, some 55 libraries did make such a telephone call.

Printing Requirements and Schedule

By July 15, the GPO supplied the investigators with typeset copy of:

- *Instructions to Libraries:* typeset on 8½ by 11 inch paper, printed front and back, standard white paper, with GPO seal and Depository Emblem affixed
- *Depository Library Information Form:* typeset on one front and back, 8½ by 11 inch paper, on light yellow paper, with GPO seal and Depository Emblem affixed
- *User Log:* typeset on lightweight 8½ by 5½ cardstock (so two can be printed at once on each 8½ by 11 piece of paper) on light blue paper
- *User Ticket for Academic Libraries:* typeset on lightweight 8½ by 11 inch cardstock (so two can be printed at once on each 8½ by 11 piece of paper) on light green paper, with GPO seal and Depository Emblem affixed
- *User Ticket for Public Libraries:* typeset on lightweight 8½ by 11 inch cardstock (so two can be printed at once on each 8½ by 11 piece of paper) on light tan paper, with GPO seal and Depository Emblem affixed
- *Publicity Signs:* (3 different signs) lettering on cardstock in 8½ by 11 (or larger as appropriate), in dark bold letters, on light background, with official seal of the GPO and/or the depository library program
- *Cover Letter:* printed on GPO-Superintendent of Documents stationery.

By July 20th, the investigators had proofed the drafts and supplied the GPO with their comments. They also supplied the GPO with mailing labels for the depository libraries separated into two groups: academic and public libraries.

By August 12, the GPO had printed the following:

- Cover Letters
- Instructions to Libraries Participating in the User Study
- Depository Library Information Forms
- Count of In-house Users (User Log)
- Academic Library User Tickets
- Public Library User Tickets
- Publicity Signs (see Appendix H)

By August 26, the Superintendent of Documents had prepared a short announcement to appear in *Administrative Notes* informing academic and public depository libraries that they would be receiving the data collection instruments no later than the first of September.

At the same time, the GPO mailed, first class, the packet of materials (the cover letter, the Instructions to Libraries Participating in the Study, the Depository Library Information Form, and the specified number of User Logs, Academic and Public Library User Tickets, and signage).[4] Printed on the cover of the packet mailed to depository libraries was the following:

ATTENTION DEPOSITORY LIBRARIAN: U.S. GOVERNMENT PRINTING OFFICE USER STUDY ENCLOSED, OPEN IMMEDIATELY.

The purpose for mailing the packet in late August was to ensure that the libraries received the material in ample time to review the instructions and prepare for data collection. If questions arose, they were instructed to contact Mr. Mark Scully, Director of Library Programs Service of the GPO, one of the investigators, or a member of the Advisory Board.

DATA COLLECTION SCHEDULE

From Monday through Sunday (preferably either September 26 to October 2, 1988; or October 3 to October 9, 1988), library staff members were asked to monitor the specified service points and complete the user tickets and in-house materials user log. For those libraries not staffed on weekends, data collection occurred Monday through Friday. The staff, however, were asked to leave a supply of user tickets in a prominent place so that users would be encouraged to participate. It is likely that weekend counts underestimated the number of users and uses.

Ideally, all libraries should collect data during the same week. However, it is impossible to predict local circumstances at more than 1,000 academic and public libraries. Perhaps the school term is just beginning, or some local programming, that would severely reduce the number of people who might normally visit the library and its depository collection, is taking place. Therefore, as an alternative, data collection could take place during one of five possible weeks in September or October, 1988. The Depository Library Information Form requested whether the staff collected data for 5 or 7 days, and for which week. In short, the data collection schedule was intended to be large enough to generate meaningful data but not so large as to impose a hardship on library staff and users.

QUALITY OF DATA

Efforts to Ensure Reliability and Validity

Reliability seeks to determine the degree to which the data are consistent; consistency is the extent to which the same results are produced from different samples of the same population. A number of steps were taken to increase the likelihood of collecting reliable data.

First, the data collection instruments were developed in light of existing knowledge regarding the conduct of user studies. The investigators applied insights gained from the creation and utilization of data collection instruments that have been effective for similar studies in the past. These instruments have focused on document uses, generally at one library (see Chapter 2).

[4] Because such a count had not been taken previously, it was impossible to estimate precisely the number of forms to print. The GPO supplied each library with 300 copies of the user ticket. If the libraries needed extra copies, they were instructed to make photocopies.

Second, the data collection instruments were carefully reviewed and pretested. A number of individuals representing the GPO and practicing documents and other librarians critiqued the data collection instruments. After each review (at the Board meeting held at the Depository Library Council, the subsequent analysis from Board members, and the formal pretest), the documentation was revised, clarified, and improved.

A second criterion of reliability is accurate and consistent coding of data. The investigators wrote (and pretested) instructions that guided actual data collection (see Appendix B). Before data were coded and entered into a machine-readable format, the investigators adhered to written check-in and stamping procedures (see Appendix I). The investigators reviewed each completed form and inserted coding instructions, as necessary. In cases where data were ambiguous, they followed written decision rules in order to ensure consistent coding and entry of the data. Each completed user ticket was stamped with a unique accession number to facilitate verification. The investigators subcontracted with Testing Services, Syracuse University for data entry and verification, tape transfer, and programming.

After the data were entered on tape, Testing Services, as well as the investigators, ran reliability programs to identify erroneous entries, or entries that fell outside a typical range of responses. Of the some 54,000 user tickets reviewed, only 27 such erroneous entries were identified. These user tickets were eliminated from the database.

Validity is an assessment of the extent to which data collection procedures actually measure what the investigators intended to measure. Validity can never be established beyond a shadow of a doubt, but investigators can develop criteria that comprise indicators of data validity.

A first criterion is one of *face validity*. This criterion simply asks that people knowledgeable about the topic concur that data collection accurately measures the variables under consideration. In this particular instance, key terms have been defined and reviewed by GPO officials and practicing librarians. They have also reviewed the data collection procedures. Further, the data elements used in this study are typical of data elements included in other user studies.

Another validity criterion are the constructs used to measure key variables. This study draws upon work done by a number of researchers (summarized in Chapter 2) to measure "users" and selected characteristics of users. In addition, Rubin (1986) and Van House et al. (1987) have investigated the measurement of in-house materials use. Drawing upon their work represents an effort to increase the validity of the measurement used in this study.

External validity is the degree to which the results can be generalized from a sample to the entire population. A key indicator of external validity is the degree to which the responding depository libraries represented the entire population of academic and public depositories. The next chapter describes the extent of library participation; compares responding to non-responding libraries on selected, key variables; and summarizes the results. Since the total user population is unknown, the study attempted to collect data based on the population of academic and public depository libraries. Because the response rate was 80 percent and because the characteristics of responding libraries closely matched the population of academic and public depository libraries (see the next chapter), the data likely have external validity.

The selection of a seven-day period for counting users of depository library publications affects both the reliability and the validity of the data. Previous research suggests that such "normal" periods or weeks are best established in library environments in the fall or spring. Allowing participating libraries to select the week for data collection increases the likelihood that they will choose a representative time period.

Finally, both the reliability and validity of the data collection process should be increased by encouraging participating libraries to call one of the investigators or a member of the Advisory Board with any questions they might have. Should a contingency have arisen for which there were no clear guidelines, the participating librarians could obtain guidance consistent with

the suggestions and guidelines being offered other participants. And, in fact, some librarians did call one of the investigators or a member of the Advisory Board.

Possible Sources of Error

Despite the best efforts of the investigators, the Advisory Board, and participating librarians, possible error may have entered the data. Figure 3-4 summarizes the sources of these possible errors and serves as a reminder that in any large-scale study collecting self-reporting data, such as this study did, some degree of error will result. The most significant impact of the error will be an undercount of depository users. That undercount could result due to factors such as patron non-compliance, staff non-compliance, staff shortages, staff too busy, inability to identify documents users, and the integration of depository holdings with the general collection.

As discussed throughout this chapter, the investigators took a number of specific steps to minimize the impact of these possible sources of error, e.g., pretesting the data collection process and distributing printed instructions for administering the data collection instruments. It is interesting to compare Figure 3-4 to Figure 3-5, which summarizes actual concerns and comments regarding the data collection process submitted by the librarians participating in the study. These comments, which were solicited on the library information form (see Appendix C), were analyzed and summarized in Figure 3-5.

Figure 3-4.—Anticipated Sources of Error

Factor	Explanation
Written instructions.	Library staff might not adhere to them or consider them too long and complex. Staff might begin data collection at other than a specified time. Local circumstances might necessitate judgment calls and procedural alternatives, but these might not be reported on the depository library information form. Despite the instructions, some libraries might tally user tickets on the user log, rather than to use the log to count in-house users.
Misperceptions about the purpose of the study.	Some library staff members might mistakenly believe that this study carried a hidden agenda and could be "detrimental" to the depository program.
Administration of instruments.	Some libraries may be more conscientious than others in conducting the study. Some staff members might record any use of a depository department as part of the study. For example, they might include students studying there or visiting the area as part of a library tour.
Failure of staff to participate.	Some staff members might be reluctant to participate in the survey. They might fail to distribute tickets to users. Librarians might not get in the habit of recording use throughout the week.
Perceptions of documents and a depository item.	Not all library patrons may be familiar with the expression "document." Some of the most heavily used items (e.g., *Statistical Abstract* and *Library of Congress Subject Headings*) might not be associated with the depository program.
Reference service.	Some staff members might not feel justified in handing out a user ticket after an unsuccessful reference experience.
Duplication of users.	It may be difficult to ensure that some users were not counted twice: once with the user ticket and again with the user log.
Difficulty in monitoring circulation and other departments.	Circulation may take place in another department, and staff here might experience problems in identification of a title as a depository item. Dispersion of documents holdings throughout a library complicates data collection and increases opportunities for undercounts.
Patron reluctance to participate.	Patrons might be reluctant to participate for various reasons.

Figure 3-4.—Anticipated Sources of Error—Continued

Factor	Explanation
Staffing.	As already noted, not all staff might be supportive of the study and want to be diverted from other activities. Completion of the user log could be a burden during busy times and where there are staff shortages. The busiest times might go unrecorded.
Observation of users.	Staff members may resent having to observe what patrons are using in order to determine if these people comprise documents users.
Integrated collections.	Where documents are integrated, it is difficult to monitor use. There is more of a burden on staff to observe patron information-gathering behavior.

Figure 3-5.—Summary of Librarian Comments

General reactions	Specific comments
The survey was difficult to administer.	Could not monitor documents use when the collection was partially or completely integrated or when two institutions shared the documents collection; difficult to monitor circulation or interlibrary loan involving documents; difficult to ensure patrons who completed user tickets were not also counted on in-house log; and difficult to determine what materials were used in-house.
Staff could not devote sufficient time or attention to data collection.	Staff were too busy to ensure that all transactions were represented by user tickets or to do the hourly in-house count; staff forgot to record some commonly used reference titles; some staff were uncooperative; too many staff members were involved in the survey process to ensure uniformity or accuracy; and difficulty in remembering to record telephone use of documents held in the reference collection.
The survey was intrusive or inappropriate at times.	Staff did not like to "spy on" users while they studied; and questions about occupation and education were intrusive.

Figure 3-5.—Summary of Librarian Comments—Continued

General reactions	Specific comments
Survey results underrepresent use of the documents collection.	The survey week was too early in the academic term; potential users were distracted by unusual events in the community or kept away by renovation or other problems with the library's facilities; users deliberately avoided the department due to the survey; and it was inappropriate to hand out a user ticket after an unsuccessful reference experience.
The survey was threatening.	Survey results might be used to reduce or eliminate the depository library program or have some bearing on a library's depository status.

Many of the anticipated sources of error listed in Figure 3-4 were also identified by the participating librarians. The librarians frequently commented that, for a host of reasons, they may not have been able to distribute tickets to all users of depository publications and that they were not always able to administer the user log as frequently as instructed. Although a few librarians believed the week they had chosen to conduct the study resulted in a "low" number of users, it is equally likely that some libraries had a "high" number of users for the week selected. The comments from the librarians support the belief that the data reported in the next chapter represent an undercount of actual users.

Given that some error will inevitably "sneak in" to any study, it is important that the investigators:

- Explain clearly how the data were collected, how key terms were defined, and what procedures were used in the data collection process
- Detail the steps taken to increase the reliability of the data and the validity of the findings
- Identify factors that may have introduced error into the study

- Caution readers that the data must be understood and interpreted within various constraints.

In one sense, the research process confronts a broad range of trade-offs in which the investigators were constantly forced to decide the "best" data collection activities and techniques in light of numerous possible constraints. Given these constraints, the investigators made every effort to reduce error and increase the likelihood of collecting quality data for this study.

SUMMARY

The research design and methodology described in this chapter address the study's research questions within the context of specified objectives (see Chapter 1) and certain limitations and assumptions related to conducting a national user study. Unique factors related to the organization and administration of individual depository libraries contribute to the difficulty in conducting such a study. These factors underscore that this investigation yields management data and deals primarily with a fundamental question "Who uses depository collections and services?"

A study such as this one is extremely complex given the necessity of dealing with so many libraries, their local circumstances and willingness to participate in data collection. Both the investigators and members of the Advisory Board recognize the constraints that affect data collection and the concerns expressed in the pertinent literature on documents use (see Chapter 2).

A number of techniques have been incorporated into the design to increase the likelihood of collecting valid and reliable data. Nonetheless, a number of sources of error can affect the completion of a national study directed at more than 1,000 libraries. Subsequent investigations can refine the steps involved in completing the study. Every effort has been made to keep the data collection instruments and the data collection process as easy, straightforward, and short in duration as possible.

In summary, the data collection forms and the accompanying instructions were extensively reviewed. The pretest sites found that academic and public depository libraries should be able to complete data collection in a straightforward and consistent manner. The libraries had some latitude in the selection of a week they believed to be the most typical of depository library use.

The study examines users, regardless of whether they asked the question in-person or by telephone or mail. However, it bears repeating that the study concentrated only on academic and public depository libraries. It does not examine other participants in the depository program (see Chapter 1). Furthermore, it was not feasible, in this study, to address the question "What percentage of the people who use academic and public libraries use GPO depository library holdings?" The instructions reprinted as Appendix B include other qualifications on the data collection process. Still, it is important to remember that this study represents a first effort to collect reliable and valid data about who uses academic and public depository library holdings. At the same time, the study focuses national attention on the importance of the depository library program and knowing who uses depository collections. Additional research could build from this modest beginning and accomplish more ambitious objectives.

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Chapter 4

Study Results

This chapter presents data to answer the two research questions:

- What is the estimated number of users of academic and public depository publications for a specified time period?
- What are selected characteristics of these users in terms of gender, educational level, occupation (for public library users) and academic status (for academic library users)?

This chapter presents only the findings that specifically address these questions. The GPO did not request the investigators to either integrate study findings with the larger literature or speculate about their meaning and implications.

It should also be stressed that, throughout the chapter, "users" means users of GPO depository materials in academic and public depository libraries *only*. The following count and description do not characterize users of *all* U.S. government publications and libraries, depository and nondepository.

In addition, the count and description of users are given without regard to the mission, goals, and objectives of either individual libraries or the depository library program as a whole. Most likely, some libraries place higher priority on depository materials and user services than others and some libraries better attempt to meet GPO depository library guidelines. Because of such priorities, *individual* libraries may report user counts and user characteristics in a somewhat different form than the aggregate data presented in this chapter.

HANDLING OF THE DATA

Research assistants checked all returned survey materials. This process included listing in a log the date of receipt of the survey materials, the library depository identification (ID) number, and the number and type of survey instruments returned. The assistants inspected each survey instrument to ensure clarity and understandability for data entry. They also stamped each user ticket with a unique accession number.

After the assistants logged and inspected data collection instruments, the data were entered into machine-readable format: two datafiles. The first contained data from the user tickets, and the second file contained data from the depository library information form and the summaries from the user log (log of in-house library users). The investigators analyzed the machine-readable data by use of the SAS statistical analysis program for mainframe computers.

The investigators took appropriate steps to ensure the reliability and validity of the data. The previous chapter details these various activities. In addition, a computer program checked the files for reliable data entry, and the data were shown to be correctly entered with virtually no errors.

Because participating libraries collected data over five different one-week periods, the data were analyzed to determine if there were systematic differences in the composition of respondents participating in data collection during different time periods. The investigators performed a chi-square statistical test on gender of respondents by week, as well as the educational level of respondents by week. No significant differences emerged at the .05 level. Thus, the characteristics of users remained constant regardless of the week in which depository libraries administered the survey instruments.

RESPONSE RATE

Based on a review of the libraries listed in *A Directory of U.S. Government Depository Libraries: March 1987* (Congress. Joint Committee on Printing, 1987), the investigators identified 770

academic and 284 public libraries as holding depository status. The GPO sent survey packets to each of these 1,054 libraries. For the academic depository libraries, 620 of the 770 completed and returned the surveys (81% response); and for the public libraries, 227 of 284 completed and returned the surveys (80% response). Therefore, 847 (80%) of the 1,054 libraries participated in the study. It should be noted, however, that a few of the responding libraries did not administer the user logs as part of their survey.

As discussed in Chapter 3 under "User Population," the investigators constructed a database of selected characteristics of academic and public depository libraries. One purpose of this database was to provide a means to compare responding to non-responding libraries. Table 4-1 compares all libraries, respondents and non-respondents in terms of "population." For academic libraries, this variable was defined as total student enrollment. For public libraries, the variable was defined as population of the community in which the library was located. *The American Library Directory* (1987) was the source for these data.

Table 4-1.—Analysis of Respondents and Nonrespondents

[In percentages]

	All	Respondents	Nonrespondents
Academic Libraries (N=770):			
Low enrollment (less than 2,500)	36	31	55
Moderate enrollment (2,500 to 8,500)	33	34	29
High enrollment (greater than 8,500)	31	35	16
Public Libraries (N=284):			
Low community size (less than 73,000)	33	32	37
Moderate community size (73,000 to 230,000)	32	33	26
High community size (greater than 230,000)	35	35	37

As shown in Table 4-1, academic library respondents closely matched or represented the total population in terms of student enrollment. However, a greater percentage of libraries with low student enrollment comprised non-respondents than respondents. Further, a smaller percentage of libraries with high enrollment was non-respondents (as opposed to respondents).

For public libraries (see Table 4-1), the respondents almost perfectly matched the total population in terms of community size. However, there were slightly fewer public library non-respondents in the moderate category than there were for the respondents. By reviewing each column in Table 4-1, it can be said that the respondents for both academic and public libraries were representative of the population of academic and public depository libraries. Nonetheless, there were some differences between respondents and non-respondents.

ESTIMATED NUMBER OF USERS PER WEEK

The number of users was computed by totaling the user tickets, less the tickets of "repeat users," adding the number of users identified from the user log (log of in-house library users), and adding to this total the estimate of both user tickets and user logs for the non-responding libraries. Table 4-2 summarizes the number of users for both academic and public libraries.

Table 4-2.—Total Academic and Public Depository Library Users Per Week

	Respondents		Estimate for Nonrespondents		
	User tickets*	Log count	User tickets*	Log count	Total
Academic libraries	40,469	71,533	7,134	19,032	138,168
Public libraries	10,202	12,639	2,540	4,200	29,581
Total	50,671	84,172	9,674	23,232	167,749

* Does not include repeat users.

The estimate of the number of users for non-responding libraries was computed as follows. Responding academic and public libraries were categorized as low, moderate, or high based on student enrollment (for academic libraries) and community size (for public libraries). Within each category, for both user tickets and the user logs, an average number of users was computed. This average number of users within each category was multiplied by the number of non-responding academic or public libraries that was identified as falling into the same category. Because a number of libraries that returned user tickets did not return user logs, the investigators estimated the number of in-house users for libraries not providing this information.

For example, if the average number of user tickets from responding academic libraries with low student enrollment was 50 and there were 70 non-respondent academic libraries categorized as low enrollment, then a total of 3,500 users was estimated for that particular category of academic libraries. Because of the differences between respondents and non-respondents (see Table 4-1), this method of estimation is more valid than simply multiplying the average number of users per library by the number of non-responding libraries.

Caution is needed in interpreting the results shown in Table 4-2. Many of the respondents noted that it was impossible for them to count all users for a variety of reasons. They commented that, for example:

- Because of multiple service points for various types of government publications all users may not have completed the user ticket
- All users could not be easily identified in libraries where government documents were integrated throughout the collection
- They were unable to administer the user log count for all the required hours or even entire days during the survey week due to inadequate staffing levels.

For these and related reasons (see Chapter 3), the data may undercount the number of actual users by at least 10 percent and perhaps as much as 15 percent despite the fact that user log counts may include repeat users.[1] Further, it should be recognized that data reported in Table 4-2 do not include "pass alongs" i.e., when there are multiple users of a particular government publication.

Table 4-3 describes the average number of users by geographic region in the continental United States. The number of users is based on data from user tickets and the user log from responding libraries only, i.e., does not include the estimate of non-respondent libraries. It is interesting to note that the average number of users per week ranged from a high of 243 for academic libraries in the Pacific region, to a low of 68 users per week for public libraries in the Mountain region. These estimates of weekly users are *not* standardized in terms of the number of potential users for each region.

[1] This estimate is based primarily on comments received from participating depository libraries.

Table 4-3.—Average Number of Users Per Week by Census Region*

	Academic libraries	Public libraries
Pacific (WA, OR, & CA)	243	127
Mountain (ID, MT, WY, CO, UT, NV, AZ, & NM)	220	68
West North Central (ND, SD, MN, NE, KN, MO, & IA)	196	91
East North Central (WI, MI, IL, IN, & OH)	153	106
West South Central (OK, AK, LA, & TX)	160	161
East South Central (KY, TN, MS, & AL)	172	85
South Atlantic (WV, MD, DE, DC, VA, NC, SC, GA, & FL)	192	94
Middle Atlantic (NY, PA, & NJ)	171	85
New England (ME, NH, RI, VT, MA, & CT)	143	84

* Figure 3-2 shows a map depicting these geographic regions.

DEMOGRAPHIC CHARACTERISTICS OF USERS

Demographic data describing the users were collected from the user tickets. No demographic information could be obtained from the user log (in-house materials use log). Thus, the demographic characteristics provided in this section are based solely on the data from the user tickets. Furthermore, the demographic characteristics of users described in this section do not include repeat users. Analysis focused on the first-time a person completed a user ticket; the second and successive user tickets completed by one person were not included in the total user count as they would skew the analysis of demographic characteristics. Some 3,945 user tickets of the total of 54,621 (7%) were identified as "repeat users" (returning for a second or successive time during the one-week data collection period).

Gender of Users

Table 4-4 describes the gender of users of academic and public library depository publications. Males constituted 52 percent of academic library users and 53 percent of public library users. Females constituted 48 percent of academic library users and 47 percent of public library users. The percentages of users by gender do not vary significantly between academic and public libraries.

Table 4-4.—Gender of Users

	Academic libraries	Public libraries	Total
Male	20,707 (52%)	5,197 (53%)	25,904
Female	18,934 (48%)	4,631 (47%)	23,565
Total respondents	39,641	9,828	49,469

Education of Users

Table 4-5 describes the educational composition of users of academic and public library depository materials. Users who described themselves as having a college education and graduate training (the combination of the college and post-bachelor categories) accounted for 93 percent of academic library users and 80 percent of public library users. In general, Table 4-5 suggests that users of academic and public library depository material are highly educated.

Status of Users

Table 4-6 describes the status of academic library users. Students constituted the largest percentage of users—some 77 percent. In a distant second place were local community members who comprised 9 percent of total users, followed by faculty who comprised 8 percent of the users. While one might expect a high percentage of student users in academic libraries it

Table 4-5.—Education of Users

	Academic libraries	Public libraries	Total
Jr. High School	188	219	407
	(.5%)	(2%)	
High School	2,498	1,576	4,074
	(6.3%)	(17%)	
College	29,506	5,343	34,849
	(75%)	(59%)	
Post-Bachelor	7,152	1,898	9,050
	(18%)	(21%)	
Total respondents	39,344	9,036	48,380

may be surprising that such a low percentage of users described themselves as faculty. However, it should be remembered that faculty may have student assistants and/or office staff who act as surrogates for them in the use of the library.

Table 4-6.—Status of Academic Library Users

	Number	Percentage
Student	30,598	77
Faculty	3,018	8
College/university staff	1,369	3
Community member	3,485	9
Other	1,366	3
Total respondents	39,836	

In public libraries, status was described in terms of occupation. The Bureau of Labor Statistics uses these occupational categories with some minor exceptions. Appendix F provides definitions of these categories. The largest percentage of users described themselves as professionals, while students were the next largest group. Together, these two groups accounted for more than half of the respondents (see Table 4-7). Interestingly, over 40 percent of the public library users described their occupation as managerial or professional.

Table 4-7.—Status of Public Library Users

	Num-	Per-
	ber	centage
Homemaker		
Manager		
Laborer		
Production		
Professional		
Technical		
Retired		
Student		
Unemployed		
Other		
Total respondents		

Data also were collected to [illegible] users contacted depository library [illegible] Table 4-8 summarizes the percentage at specific service points by type of library. The table suggests that the central reference, the documents department (if separate collections), or a combined central reference/documents service point accounted for [illegible] the locations for user contact with documents materials. Interestingly, relatively few [illegible] occurred in a maps or microforms area.

Table 4-8.—Percentage of Users at Specific Service Points by Type of Library

[In percentages]

Central reference			
Documents department			
Combined reference/documents area			
Maps			
MicroForms			
Circulation			
Interlibrary loan			
Subject division or department			
Other			

RELATING THESE FINDINGS TO OTHER STUDIES

It is not the intent of this chapter or report to analyze study findings, discuss their implications, or relate the findings to other studies or broad issues related to users of the depository library program. Readers who wish to consider

ton, DC: General Accounting Office, November, 1988

- Hernon, Peter, and Charles R. McClure. *Public Access to Government Information: Issues, Trends, and Strategies.* Second edition. Norwood, NJ: Ablex Publishing Corporation, 1988
- Hernon, Peter, Charles R. McClure, and Gary R. Purcell. *GPO's Depository Library Program: A Descriptive Analysis.* Norwood, NJ: Ablex Publishing Corporation, 1985.

Other useful sources may be found among the references in Chapter 2.

IMPORTANCE OF TREND DATA

might be done; procedures used for the study reported here could be revised and refined

- *Case Site Study:* instead of a national survey, a case site analysis of a carefully selected sample of depository libraries could be done; such an approach might produce more reliable data than a national survey.

A determination of the best option ought to be based upon (minimally) the following factors:

- The quality and type of data needed
- The amount of resources available to support the data collection activity
- The level of effort required by participating depository libraries.

However, for purposes of long-range planning and demonstrating the accountability of the depository library program, trend data describing *users, nonusers,* and *uses,* in all types of depository libraries, are needed.

SUMMARY

and 68 to 161 in public libraries, depending on the geographic region. Males and females are about evenly split as users of government publications in both academic and public libraries. Users tend to be highly educated and can be characterized primarily as students and in professional or managerial occupations.

As repeatedly emphasized, these data, as well as any data gathered from a self-administered survey, should be interpreted with caution. The investigators took a number of precautions to increase the reliability of the data and to produce valid findings. Interpretations of the data should be made in light of these precautions and by considering the limitations of the study described in Chapter 3. However, at the aggregate level of analysis and in light of the excellent response rate, these findings provide an excellent "first shot" at determining the number of users, and their characteristics, of academic and public library depository government material.

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Appendix A

Explanation of Data Collection in 1983 Biennial Survey*

STATISTICAL COLLECTIONS FOR BIENNIAL REPORT UPDATE

In September 1983, GPO will send out the 1983 *Biennial Survey* questionnaire. The purpose of the Biennial Report is to fulfill the requirements of 44 *USC* Section 1901: "The designated depository libraries will report to the Superintendent of Documents at least every 2 years concerning their condition." The results of the Biennial Report have a twofold purpose: to provide GPO with a picture of conditions in depositories and to provide depositories with meaningful statistics which will enable them to draw conclusions about services in their libraries.

The 1983 *Biennial Survey* will contain a section of statistics which will be repeated on later surveys so that GPO and depository libraries will have a sense of change over time.

It will be necessary to collect some information prior to receiving the survey in September. Please follow the instructions for collecting data. The results will only be valid if everyone uses the same sampling schedule for collecting data.

WEEK ONE	Monday
WEEK TWO	Tuesday
WEEK THREE	Wednesday
WEEK FOUR	Thursday
WEEK FIVE	Friday

Please add all five days' results together when answering *Biennial Survey* questions. A form is attached to facilitate data collection. You will need to make five copies of the form to use for each day of the survey. The list of topics addressed is not complete but will help us in determining a depository library profile.

DRAFT WORKSHEET

THIS IS A WORKSHEET FOR COLLECTING DATA. MAKE FIVE COPIES OF THIS FORM TO USE FOR THE FIVE DAYS OF THE SURVEY.

No. of users in the documents dept. (For separate documents departments only)

ALL DEPOSITORIES: ALL QUESTIONS RELATE TO DOCUMENTS

No. of directional questions (EX. Where is the *U.S. Code*?)

No. of reference/research questions

No. of database reference searches

No. of referrals

No. of items not available for use for which library staff searches stacks and other locations

No. of interlibrary loan requests sent out

No. of interlibrary loan requests filled

No. of hours spent on tours, bibliographic instruction, presentations, publications, exhibits or other publicity for documents

The following information for the Biennial Report does not require sampling. You will need to collect the following information over a 1 month period.

*This Appendix item is reprinted from *Administrative Notes* [Office of the Superintendent of Documents], 4 (June 1983): 2, 4-6; 4 (July 1983): 2; and 4 (August 1983): 4-8.

RECEIPTS: Regionals and full depositories do not need to collect this information.

Number of depository print pieces (excluding legislative documents (classes X and Y)

Number of bills and legislative documents (classes X and y)

Number of microfiche (excluding X and Y)

Number of maps

ACQUISITIONS: All depositories

Number of claims ordered

Number of items purchased from GPO Sales

Number of items received from other depository programs, e.g., NRC, NASA, NLM

Number of items offered on exchange lists

Number of items sent to other libraries from exchange lists

Number of items disposed of

RECORD MAINTENANCE

Number of print pieces (excluding legislative documents) cataloged

Number of print pieces (excluding legislative documents) included on a shelflist, serial check-in or other locator file

Number of microfiche (excluding legislative documents) cataloged

Number of microfiche (excluding legislative documents) included on a shelflist, serial check-in or other locator file

STAFFING: This pertains to documents only

Number of professional staff (FTE)

Number of clerical and support staff (FTE)

Number of volunteers (FTE)

EQUIPMENT

Seating capacity for users of documents

Number of microfiche readers

Number of microfiche reader/printers

Number of computer terminals available to users and staff

Number of copiers staffed and unstaffed provided on library premises for users

Fiche-to-Fiche Duplicator capability

1983 BIENNIAL REPORT ADJUSTMENT

We've received many calls and letters about the timing of the 1983 Biennial Report. The major complaint was that many public and academic libraries' circulation and use statistics drop off in summer months. As requested, the collection of statistics required for the 1983 Biennial report is now scheduled to take place in September.

Statistics on receipts, acquisitions, and record maintenance should be kept for September 1-30, 1983.

Statistics on patron use and reference assistance should follow the schedule below:

Monday	August 29, 1983
Tuesday	September 6, 1983
Wednesday	September 14, 1983
Thursday	September 22, 1983
Friday	September 30, 1983

If your library is closed during a period when the survey schedule is in effect, use your judgment and survey for the same period of time when the library is open.

We realize that the schedule will still be inconvenient for some libraries but there is no period in the year which will be ideal for everyone.

A copy of the 1983 Biennial Report will be mailed to your library in October. As usual, there will be 6 weeks to answer the questionnaire.

DEFINITIONS TO BE USED FOR THE 1983 *BIENNIAL SURVEY*

The staff at the Library Division appreciates the many helpful comments and suggestions received about the collection of data for the 1983 Biennial Report. Here are some general comments and definitions which should clarify most of the problems.

Sampling Schedule

The sampling schedule for use and circulation statistics should reflect one week's use of the collection. As in many libraries collecting circulation statistics, the sampling days are spread out over a 5-week period. If your depository has Saturday and Sunday hours, add the weekend hours into Friday's statistics as we are trying to collect data for one week's use.

Federal Documents

The survey is only to reflect the use of Federal Government documents, not state, local, or international documents.

Number of Users in the Documents Department

Only libraries with separate documents departments need to answer this question. As library users come into the department or call, count them.

Database Reference Searches

Count searches on databases such as OCLC or Biological Abstracts when the results yield document titles. Do not include OCLC searches when a cataloger is cataloging a document.

Referrals

The term referral pertains to referral to other libraries, state agencies, bookstores, and other institutions outside the library. Having other staff members help answer reference questions doesn't constitute a referral.

Items Not Available for Use for Which the Staff Searches Stacks and Other Locations

Count only items that are included in the library's holdings but are missing, at the bindery, or circulating. Do not include items the library does not own.

Receipts

Exclude the line in which we requested a count of the *Number of Bills and Legislative Documents (Classes X and Y)*. GPO is able to track this information and it was included under the receipts category in error. Receipts are counted excluding legislative documents so that the number of items received can be correlated with items cataloged or shelflisted. (A definition of cataloging is included later in this article). With regard to the number of microfiche, count titles, not pieces, and do not count legislative microfiche or print titles. You should be able to get your counts from shipping lists.

Acquisitions

Number of claims refers to claims submitted to the Library Programs Service.

With regard to items purchased from GPO Sales, count each subscription as one item and count items ordered, not items ordered and received.

Do not count superseded items as a part of the number of items disposed of. Do count items that were included in discard lists not selected by other libraries and approved for discarding.

Record Maintenance

For print pieces and microfiche cataloging statistics, include items for which a cataloged entry is included in a public catalog. A cataloged item will usually have more than one entry. If a series or serial title has previously been included in the public catalog, you may include that issue in the cataloging statistics.

When counting microfiche shelflisted or cataloged, count titles, not individual fiche.

Staffing

Include the number of hours non-documents librarians and support staff work with documents. (Ex., hours spent by catalogers and shelvers.)

Include student aide time with clerical and support staff.

Equipment

Equipment refers to equipment accessible to documents staff and users.

If there are several OCLC terminals in the library, count OCLC only once.

Directional Questions

Questions that can be answered without using any reference sources other than schedules of staff, floor plans, handbooks or policy statements. Examples of this type of question include giving directions for locating departments within the library, current periodicals, etc.

REVISED WORKSHEET

THIS IS A WORKSHEET FOR COLLECTING DATA. MAKE FIVE COPIES OF THIS FORM TO USE FOR THE FIVE DAYS OF THE SURVEY.

No. of Library patrons in the documents dept. (For separate documents departments only.)

ALL DEPOSITORIES: ALL QUESTIONS RELATE TO DOCUMENTS

No. of directional questions

No. of reference/research questions

No. of database reference searches

No. of referrals

No. of items not available for use for which library staff searches stacks and other locations

No. of interlibrary loan requests sent out

No. of interlibrary loan requests filled

No. of hours spent on tours, bibliographic instruction, presentations, publications, exhibits or other publicity for documents

NON-SAMPLING INFORMATION

The following information for the Biennial Report does not require sampling. You will need to collect the following information during September.

RECEIPTS (Regionals and full depositories do not need to collect this information.)

Number of depository print pieces (Excluding legislative documents, Classes X and Y)

Number of microfiche titles (Excluding classes X and Y)

Number of maps

ACQUISITIONS (All depositories)

Number of claims submitted to Library Programs Service

Number of titles purchased from GPO Sales

Number of titles offered on exchange lists

Number of items sent to other libraries from exchange lists

Number of items disposed of

RECORD MAINTENANCE

Number of print pieces cataloged (Excluding legislative documents)

Number of print pieces included in a shelflist, serial check-in or other locator file (Excluding legislative documents)

Number of microfiche cataloged (Excluding legislative documents)

Number of microfiche titles included in a shelflist, serial check-in or other locator file (Excluding legislative documents)

Number of microfiche titles for which no record is kept (Excluding legislative documents)

STAFFING: This pertains to staff working with Federal documents only

Number of professional staff (FTE)

Number of clerical, support staff and student aides (FTE)

Number of volunteers (FTE)

EQUIPMENT

Seating capacity for users of documents

Number of microfiche readers

Number of microfiche reader/printers

Number of computer terminals available to users and staff

Number of copiers staffed and unstaffed provided on library premises for users

Fiche-to-Fiche Duplicator capability

Instructions to Libraries Participating in the User Study of Academic and Public Depository Libraries

BACKGROUND

The Government Printing Office has contracted for a study to determine the number and types of users of academic and public depository libraries. That study is being conducted by Charles R. McClure of Syracuse University and Peter Hernon of Simmons College.

For the study to be successful, it is essential that each depository library participate. The Superintendent of Documents, Mr. Donald E. Fossedal, previously has communicated with you, through *Administrative Notes*, about the importance of the study. The material contained in this packet provides information and the data collection instruments needed to participate in the study.

VALUE OF YOUR COOPERATION

Without information on users, it is exceedingly difficult to engage in long-range planning for the depository library program and to review program goals. Descriptive information will assist the GPO in better understanding who uses depository collections and in conveying this information to Members of Congress and to other interested parties.

USER AND USE STUDIES

User studies identify who uses libraries, the characteristics of these individuals, and their frequency of library use. In contrast, use studies probe information-gathering behavior and examine barriers to information gathering. Use studies may investigate nonusers as well as library users. Use studies depict the reasons for use and nonuse, and analyze the process by which people gather information.

Please remember that the study, as stipulated by the GPO, is a user, not a use, study. We are looking at users of the GPO depository collection housed in academic and public depository libraries—who are these users and how many are there.

MATERIALS CONTAINED IN THIS PACKET

Please check to make certain that all the necessary items are included in this packet:

- Multiple copies of the User Ticket
- Multiple copies of the User Log
- The Depository Library Information Form
- Signs to inform members of the public that your library is participating in the study.

If any of these materials are not included, please contact Mr. Mark Scully at the Government Printing Office (202-275-1114) and request the materials needed.

TIME LINE FOR PARTICIPATION

Your involvement in the study will be limited to the months of September and October, 1988, and actual data collection will occur only for one week. Specifically, the activities are as follows:

September 1-9:	Receive packet of information and review materials included in the packet.
September 12-25:	Prepare to administer data collection instruments.
September 26-October 2:	Administer data collection instruments, for a week that approximates "typical use."

October 3–9, or October 10–16, or October 17–23, or October 24–30:	You may select ONE of these alternative weeks to administer the data collection instruments. First preference should be the week of September 26–October 2, but local circumstances may dictate you select a later week as *most typical.*
October 31 (or earlier):	Return completed data collection instrument to investigators.

PREPARATION

Upon receipt of this packet, review the instructions and the data collection instruments. Note that three *different* data collection instruments will be administered:

- User tickets
- User logs
- Depository library information form.

The manner to administer each of these instruments will be described later in these instructions.

Prior to actually administering the data collection instruments complete the following steps. These steps will help to ensure successful data collection later.

STEP 1: have one person serve as the coordinator for participating in the study.

STEP 2: confirm which week is acceptable for data collection. Remember the week of September 26–October 2 should be first preference and the week of October 3–9 second preference. However, you may use one of the other weeks in October if you must.

STEP 3: inform other staff members that the library will be participating in the study during the week selected.

STEP 4: identify key service places in the library where depository publications or services are located. Typically, these may include:

- The documents department
- Reference desks (where documents questions might be received)
- Interlibrary loan department/area
- Microforms
- Maps.

Review the instructions and procedures for data collection with appropriate individuals in each of these areas. You may want to supply them with a copy of these instructions.

Given variations among depository libraries, each library has latitude in its identification of key service points. Select those *most* reflective of your situation. Please note, however, that the study focuses on the service points of the library housing the central depository collection. If deemed appropriate, the survey could extend to users of depository publications and services in *key* branch libraries. We want to include only those service points where the public is most likely to encounter GPO depository publications/services.

STEP 5: identify appropriate locations to post signs (such as those included in this packet or perhaps others that you might wish to use) informing the public that the study will be conducted and that their cooperation is requested. Typically, appropriate locations include the main entrances to the library and the primary service locations where depository publications are located.

STEP 6: distribute an adequate number of copies of the user tickets and the user logs to appropriate individuals at each depository publication service location prior to the day when data collection will actually begin.

ADMINISTERING THE USER TICKETS

Each packet includes multiple copies of the user ticket. We have estimated the number of user tickets to be sent to each library but should you need additional user tickets, simply use a copying machine to make more.

At each depository publication service location in the library provide the staff with an appropriate number of user tickets. Four display boards to hold the user tickets are included to encourage high visibility of the user tickets and user participation. Place these in a conspicuous location in that service area.

Library staff might pre-check question 7, Location, of the user ticket. This will assist library patrons and ensure consistency in accurate completion of that question.

Whenever a library patron requires the use of a depository publication, the staff member is to give him/her a user ticket and request that the ticket be returned to a predetermined location in that particular service area. It is probably best to give out the ticket after the person receives the publication or uses the particular service. It might also be helpful to remind patrons to return completed forms before leaving the library.

In addition to questions received in-person, complete user tickets for:

- Questions received via telephone
- Questions received by mail
- Documents circulated
- Documents lent and borrowed (interlibrary loan).

Note that the same person might ask a question by telephone and later visit the library to borrow the document, or use interlibrary loan. Therefore, inform telephone patrons of the study. In addition, when you know that a person has used different services (reference, circulation, or interlibrary loan), count that person ONLY once. That person might complete a user ticket but not be recorded on the user log.

Some questions on the user ticket might involve more than one check mark. Some of the other questions might be left blank. Therefore, the variable of "sex" serves as a means to obtain a clear count of the number of completed user tickets that will be processed.

On the academic library user ticket, the categories of college student and faculty member apply even if the person is not from your institution. The person may be from another college/university.

Collecting User Tickets

To facilitate patron awareness of the study, please place the signage in noticeable locations. At some of the pretest sites, staff members cut off the bottoms of depository boxes and placed blank and completed user tickets in separate boxes. They placed boxes in conspicuous locations. Signs could be placed next to the boxes instructing patrons to pick up and return user tickets here. Our intent is to make the survey both official looking and inviting.

Recognizing Depository Publications

It is important for library staff to recognize that a depository publication was used in a particular transaction. "Depository publication" is any U.S. Government publication distributed to the library as part of the depository library program. Typically, there will be an accession code or stamp on such material indicating that the publication is, in fact, a depository item.

Publications that are *not* depository material include, for example, microfiche from the ERIC clearinghouse or from the National Technical Information Service (NTIS). However, we realize that it may be difficult for staff to determine if the material was a depository item or not. Some general guidelines are:

- Include indexes and catalogs received as part of the depository library program such as the *Monthly Catalog* but exclude privately produced indexes such as those of the Congressional Information Service. (Consultation of a commercial index usually results in use of depository publications.) However, if the library has replaced depository holdings with the product of CIS or another private company, do include the users.
- Include material acquired as substitute for depository publications, i.e., one format for another or from a source available faster than provided by the GPO, especially due to non-receipt of depository publications on microfiche. NOTE: This does not apply to one of the commercial equivalents to the *Monthly Catalog*. Services produced by Marcive, Brodart, Silver Platter, Auto-Graphics, and Information Access do not count as use of a depository publication. Such use will not be counted.
- Include material issued by the GPO even if you are unsure if it was, in fact, a depository item. If the library receives several

> copies of *Statistical Abstract of the United States* and other popular titles through purchase, include this as a use and compile information on the user. AS A RULE OF THUMB, IF IN DOUBT, CONSIDER THE DOCUMENT AS A DEPOSITORY ITEM!

In general, try to make certain that the government publication has an accession code or stamp on it indicating that it was received as part of the depository library program.

Giving the User Ticket to Patrons

When giving the user ticket to a patron, use a short explanatory statement such as the following:

> We are participating in a national study of depository library users this week. We would greatly appreciate your completing this questionnaire and returning it to ——— when you're done. It will only take a few moments and we would greatly appreciate your help. THANKS.

However, when the staff member provides the patron with the user ticket a number of responses from the patron are possible. Depending on the patron response, the staff member has different data collection responsibilities.

If the patron accepts the user ticket, completes and returns it to one of the designated locations, then the staff member should quickly review the user ticket to make certain that as much information, as possible, was provided. For example, if staff members have not prechecked the location of the transaction, they should complete that information on the user ticket.

If the patron will not accept the user ticket or indicates that he/she does not wish to participate in the study, then the *staff member* completes that information on the user ticket which is self-evident. For example, in an academic library, the staff member would indicate on the user ticket (1) the location where the use occurred, (2) the activity, e.g., asking a reference question, and (3) sex. Depending on the nature of the transaction, the staff member might also be able to determine the status of the individual, e.g., whether the individual was a student.

The staff member then adds the user ticket to the collection of completed user tickets.

It is essential that *all users* of depository publications be counted via the user ticket—regardless of whether the user completes it or the staff member completes it for the user.

If the patron indicates that he/she is seeking the publication for someone else (e.g., a faculty member), ask that person to complete the user ticket for the person sending him/her to the library.

Try not to survey the same person more than once the same day. In some instances, however, this may be unavoidable.

Try not to have a person complete a user ticket and then be counted on the user log. There could be duplication of effort among service points (i.e., reference and circulation). It is likely that users checking out a document have just come from a reference desk. Therefore, staff at the various service points should ask: "Have you already filled out a user ticket?"

Remember to complete user tickets for telephone and mail questions, and items circulated, borrowed, and lent. If you do reference work by telephone or mail that involves the use of a depository publication, complete a user ticket.

Time Frame for Administering User Ticket

Staff members should administer these user tickets, for one week during normal service hours, at key service points. Service points can include circulation, reference, interlibrary loan, or other locations designated as providing depository service. If services are not normally provided on Saturday or Sunday, then there will be no formal administration of user tickets during that time. Still, place copies of the user ticket in prominent locations and encourage patrons to participate.

ADMINISTERING THE IN-HOUSE COUNT OF USERS (THE USER LOG)

The purpose of the user log is to obtain a count of the number of "in-house" users of depository materials. The following steps describe how to administer this user log:

1. Identify those locations in the library where it is possible for users to use depository publications, e.g., documents stacks, reference room, microforms, and maps. Branch libraries with *significant* holdings of depository publications may be included, if you deem it practical to administer the form at these locations.

2. Every hour on the hour from Monday through Sunday, walk through these non-service areas where depository publications are housed and count the number of users. (If you know that a person completed a user ticket that day, do *not* include that person on the user log.) Try to have the same person do the counting that day. If that person already counted someone that day, do not count that person again.

3. If you cannot complete the user log for specific time periods or for one of the days (such as Saturday or Sunday) indicate on the log "NO COUNT TAKEN."

4. Use a separate log sheet for each day. You may want to use separate log sheets in different parts of the library.

5. Enter the times when the counts are made across the top. If the library opens at 9:00 a.m., the first log entry would be for one hour later at 10:00 a.m., and so forth, until closing time (or at least as long as staff are available to take the count).

6. The rows of the User Log are labeled by type of material. Record the number of users for each type of material, per hour. If users consult more than one type of publication, count their use in the cell where it appears that the greatest amount of contact is occurring. The assumption is that the same person is taking the count.

7. Total the number of users by type for each day. On one User Log supply the totals for the entire week.

8. Return the one user log with the summary of users in the same envelope as the completed Depository Library Information Form and the completed user tickets.

Special Considerations

- An item is considered used even if a patron looked at it and found that it was not what he/she wanted.
- The use of some kinds of publications may be particularly challenging to measure without inconveniencing users. In other words, is that person using a depository publication or some other source? Therefore, pick up publications on a regular basis so that later it is easier to determine what was used.
- Some uses are almost impossible to count, while others will go uncounted. Do the best you can in linking use to a user but know that no measure is perfect.
- It is easy to forget times for data collection when staff are busy with other duties. Setting a timer or using an alarm clock will help.
- Libraries cataloging and integrating depository publications should assign one staff member per day to browse periodically the areas of the general collection and observe depository users.
- Consistency in counting will be improved if only a few staff members participate in a particular activity.

COMPLETING THE DEPOSITORY LIBRARY INFORMATION FORM

The last data collection instrument to complete is the Depository Library Information Form. You should complete this form at the end of the data collection week because question No. 11 asks you to describe any special conditions or experiences during the week that may have had an impact on the data collection process. Simply provide the information requested in the space provided on that form.

RETURNING THE DATA

At the end of the one-week data collection period, collect all the user tickets, total all the information from the user logs onto one summary log, and complete the Depository Library Information Form. Enclose all of these materials

Depository Library Information Form

INSTRUCTIONS: In addition to monitoring the number of users of depository publications for the week, we would appreciate your completion of this short survey. The purpose is to obtain descriptive information about the academic and public depository libraries participating in the survey. Responses from this questionnaire will be used to better understand the data from the user logs and user tickets. The final report will not identify individual libraries.

DEPOSITORY LIBRARY NAME: _____

DEPOSITORY LIBRARY NUMBER: _____

1. What percentage of depository items do you currently select?

   a. REGIONAL (ALL) ____
   b. 80 or more ____
   c. 61-80 ____
   d. 41-60 ____
   e. 20-40 ____
   f. Under 20 ____

2. What is the full-time equivalent (FTE) number of staff members who work with U.S. Government publications deposited by the GPO. (INDICATE NUMBERS FOR ALL THAT APPLY. A FULLTIME EQUIVALENT IS DEFINED AS WORKING 40 HOURS PER WEEK IN DOCUMENTS.)

   a. Professional ____
   b. Para-professional ____
   c. Student ____

3. Describe how documents are housed in relation to the rest of the collection: (CHECK ALL THAT APPLY)

   a. Most depository materials are located together in a separate department or area of the library ____
   b. Most depository materials are integrated throughout the library ____
   c. Maps are housed separately from other depository materials ____
   d. Microforms are housed separately from other depository materials ____
   e. A large percentage (20% or more) of the documents are housed in branches of the library system ____
   f. A large percentage (20% or more) of the documents are sent to one or more locations outside of the depository library (e.g., to other institutions) ____

4. If the majority of documents is (a) integrated, (b) split among areas of the library, or (c) sent to other institutions, what percentage remains in a separate collection: (CHECK ONE)

   a. 41-50% ____
   b. 31-40% ____
   c. 21-30% ____
   d. 11-20% ____
   e. 1-10% ____
   f. Doesnt apply because most documents are kept in a separate collection ____
   g. Doesnt apply because none are kept in a separate collection ____

5. What percentage of the depository collection is kept in closed stacks (stacks that library patrons are not permitted to use)?

   a. More than 75% ____
   b. 51-75% ____
   c. 25-50% ____
   d. 1-24% ____
   e. Doesn't apply because all depository publications reside in open stacks ____

6. For the week that staff collected data for this study, how many hours could patrons access depository holdings?

a. More than 100 ____
b. 75-100 ____
c. 50-74 ____
d. 25-49 ____
e. Less than 25 hours ____

7. For that week, how many hours did staff provide reference service for depository holdings?

a. More than 100 ____
b. 75-100 ____
c. 50-74 ____
d. 25-49 ____
e. Less than 25 hours ____

8. As a general estimate, what percentage of the depository holdings was monitored during this study?

a. 75 or more ____
b. 50-74 ____
c. 25-49 ____
d. Under 25 ____

9. Specify the week that you conducted the survey:

a. September 26-October 2 ____
b. October 3-October 9 ____
c. October 10-October 16 ____
d. October 17-October 23 ____
e. October 24-October 30 ____

10. Did you conduct the survey for:

a. Five days (Monday through Friday) ____
b. Seven days (Monday through Sunday) ____

11. During the week of data collection, were there any unique conditions or experiences that might help to better explain the context in which the data were collected?

_____

_____

_____

Academic Library User Ticket

UNITED STATES
GOVERNMENT PRINTING OFFICE
ACADEMIC LIBRARY USER TICKET

DOCUMENTS USER, PLEASE COMPLETE THIS FORM AND RETURN IT TO EITHER THE BOX OR PERSON WHO GAVE IT TO YOU.
WE NEED YOUR ASSISTANCE.

FOR EACH QUESTION, CHECK THE APPROPRIATE BOX

1. Are you (MARK ALL THAT APPLY)

	Yes	No
a. Asking a reference question	☐	☐
b. Checking out a document	☐	☐
c. Making an interlibrary loan request for a document	☐	☐
d. Using a document, be it in paper copy or microform, or a map	☐	☐
e. Other: _____	☐	☐

2. Have you already completed one of these tickets today or this week? Yes ☐ No ☐

3. Sex: Female ☐ Male ☐

4. Are you a

	Yes	No
a. College student	☐	☐
b. Faculty member	☐	☐
c. Staff member of school	☐	☐
d. Local community member	☐	☐
e. Other: _____	☐	☐

5. What level of schooling have you completed?
   a. Some or all of junior high school ☐
   b. Some or all of high school ☐
   c. Some or all of college ☐
   d. Master's degree or doctorate ☐

THANK YOU FOR YOUR PARTICIPATION

TO BE COMPLETED BY LIBRARY STAFF

6. If "yes" was checked for "asking a reference question" (Question 1a), was that question asked?

	Yes	No
a. In-person	☐	☐
b. By telephone	☐	☐
c. By mail	☐	☐

7. Location:
   Central Reference ☐ Circulation Dept. ☐
   Documents Dept. ☐ Interlibrary Loan ☐
   Combined Ref/Docs ☐ Branch ☐
   Maps Dept./Area ☐ Other: _____ ☐
   Microforms ☐

If a separate unit of the library and not part of the documents or reference department, mark:
Microforms ☐ Maps ☐

Public Library User Ticket

UNITED STATES
GOVERNMENT PRINTING OFFICE
PUBLIC LIBRARY USER TICKET

DOCUMENTS USER, PLEASE COMPLETE THIS FORM AND RETURN IT TO EITHER THE BOX OR PERSON WHO GAVE IT TO YOU. WE NEED YOUR ASSISTANCE.

FOR EACH QUESTION, CHECK THE APPROPRIATE BOX

1. Are you (MARK ALL THAT APPLY)	Yes	No
a. Asking a reference question	☐	☐
b. Checking out a document	☐	☐
c. Making an interlibrary loan request for a document	☐	☐
d. Using a document, be it in paper copy or microform, or a map	☐	☐
e. Other: _____	☐	☐

2. Have you already completed one of these tickets today or this week?	Yes	No
	☐	☐

3. Sex	Female	Male
	☐	☐

4. What level of schooling have you completed?
   a. Some or all of junior high school ☐
   b. Some or all of high school ☐
   c. Some or all of college ☐
   d. Master's degree or doctorate ☐

5. Occupation (Mark ONLY ONE)
   a. Homemaker ☐
   b. Manager or proprietor ☐
   c. Operator, frabricator, laborer (machine operator, inspector, assembler; transportation & material moving; handlers, equipment cleaners, helpers, & laborers) ☐
   d. Precision, production, craft, & repair ☐
   e. Professional (teacher, doctor, librarian, accountant, etc.) ☐
   f. Technical sales and administrative support (including technicians and related support, sales, & administrative support—clerical) ☐
   g. Retired ☐
   h. Student ☐
   i. Unemployed ☐
   j. Other (Specify): _____ ☐

THANK YOU FOR YOUR PARTICIPATION

TO BE COMPLETED BY LIBRARY STAFF

6. If "Yes" was checked for "asking a reference question" (Question 1a), was that question asked?	Yes	No
a. In-person	☐	☐
b. By telephone	☐	☐
c. By mail	☐	☐

7. Location:

Central Reference	☐	Circulation Dept.	☐
Documents Dept.	☐	Interlibrary Loan	☐
Combined Ref/Docs	☐	Subject Division (e.g., Science)	☐
Maps Dept./Area	☐		
Microforms	☐	Other: _____	☐

If a separate unit of the library and not part of the documents or reference department, mark:
Microforms ☐ Maps ☐

Appendix F

Bureau of Labor Statistics Occupational Categories*

Occupation

- Managerial and professional specialty occupations
  - Executive, administrative, and managerial occupation
    - Legislators, chief execs., & genl. admstrs., pub admstrs.
    - Administrators and officials, public administration
    - Administrators, protective service
    - Financial managers
    - Personnel and labor relations managers
    - Purchasing managers
    - Managers, marketing, advertising, & public relations
    - Administrators, education and related fields
    - Managers, medicine and health
    - Managers, properties and real estate
    - Postmasters and mail superintendents
    - Funeral directors
    - Managers and administrators, n.e.c.
    - Mangement-related occupations
      - Accountants and auditors
      - Underwriters and other financial officers
      - Management analysts
      - Personnel, training, & labor relations specialists
      - Purchasing agents and buyers, farm products
      - Buyers, wholesale & retail trade, exc. farm pdts.
      - Purchasing agents and buyers, n.e.c.
      - Business and promotion agents
      - Construction inspectors
      - Inspectors & compliance officers, exc construction
      - Management-related occupations, n.e.c.
  - Professional specialty occupations
    - Engineers, architects, and surveyors
      - Architects
      - Engineers

Occupation—Continued

      - Aerospace engineers
      - Metallurgical and materials engineers
      - Mining engineers
      - Petroleum engineers
      - Chemical engineers
      - Nuclear engineers
      - Civil engineers
      - Agricultural engineers
      - Electrical and electronic engineers
      - Industrial engineers
      - Mechanical engineers
      - Marine engineers and naval architects
      - Engineers, n.e.c.
    - Surveyors and mapping scientists
    - Mathematical and computer scientists
      - Computer systems analysts and scientists
      - Operations and systems researchers and analysts
      - Actuaries
      - Statisticians
      - Mathematical scientists, n.e.c.
    - Natural scientists
      - Physicists and astronomers
      - Chemists, except biochemists
      - Atmospheric and space scientists
      - Geologists and geodesists
      - Physical scientists, n.e.c.
      - Agricultural and food scientists
      - Biological and life scientists
      - Forestry and conservation scientists
      - Medical scientists
    - Health diagnosing occupations
      - Physicians
      - Dentists
      - Veterinarians
      - Optometrists
      - Podiatrists
      - Health diagnosing practicioners, n.e.c.

*Source: U.S. Department of Labor, Bureau of Labor Statistics, Regional Office, Boston, MA.

Occupation—Continued

- Health assessment and treating occupations
  - Registered nurses
  - Pharmacists
  - Dieticians
  - Therapists
    - Inhalation therapists
    - Occupational therapists
    - Physical therapists
    - Speech therapists
    - Therapists, n.e.c.
  - Physicians' assistants
- Teachers, college and university
  - Earth, environmental & marine science teachers
  - Biological science teachers
  - Chemistry teachers
  - Physics teachers
  - Natural science teachers, n.e.c.
  - Psychology teachers
  - Economics teachers
  - History teachers
  - Political science teachers
  - Sociology teachers
  - Social science teachers, n.e.c.
  - Engineering teachers
  - Mathematical science teachers
  - Computer science teachers
  - Medical science teachers
  - Health specialties teachers
  - Business, commerce, and marketing teachers
  - Agriculture and forestry teachers
  - Art, drama, and music teachers
  - Physical education teachers
  - Education teachers
  - English teachers
  - Foreign language teachers
  - Law teachers
  - Social work teachers
  - Theology teachers
  - Trade and industrial teachers
  - Home economics teachers
  - Teachers, postsecondary, n.e.c.
  - Postsecondary teachers, subject not specified
  - Teachers, except college and university
  - Teachers, prekindergarten and kindergarten
  - Teachers, elementary school

Occupation—Continued

  - Teachers, secondary school
  - Teachers, special education
  - Teachers, n.e.c.
- Counselors, educational and vocational
- Librarians, archivists, and curators
  - Librarians
  - Archivists and curators
- Social scientists and urban planners
  - Economists
  - Psychologists
  - Sociologists
  - Social scientists, n.e.c.
  - Urban planners
- Social, recreation, and religious workers
  - Social workers
  - Recreation workers
  - Clergy
  - Religious workers, n.e.c.
- Lawyers and judges
  - Lawyers
  - Judges
- Writers, authors, entertainers, and athletes
  - Authors
  - Technical writers
  - Designers
  - Musicians and composers
  - Actors and directors
  - Painters, sculptors, craft artists, & artist print
  - Photographers
  - Dancers
  - Artists, performers, & related workers, n.e.c.
  - Editors and reporters
  - Public relations specialists
  - Announcers
  - Athletes

Technical, sales, and administrative support occupations

- Technicians and related support occupations
  - Health technologists and technicians
    - Clinical laboratory technologists and technicians
    - Dental hygienists
    - Health record technologists and technicians
    - Radiologic technicians
    - Licensed practical nurses

Occupation—Continued

- Health technologists and technicians, n.e.c.
- Engineering & related technologists and technicians
  - Electrical and electronic technicians
  - Industrial engineering technicians
  - Mechanical engineering technicians
  - Engineering technicians, n.e.c.
  - Drafting occupations
  - Surveying and mapping technicians
- Science technicians
  - Biological technicians
  - Chemical technicians
  - Science technicians, n.e.c.
- Technicians, except health, engineering, and science
  - Airplane pilots and navigators
  - Air traffic controllers
  - Broadcast equipment operators
  - Computer programmers
  - Tool programmers, numerical control
  - Legal assistants
  - Technicians, n.e.c.

Sales occupations

- Supervisors and proprietors
- Sales representatives, finance and business services
  - Insurance sales
  - Real estate sales
  - Securities and financial services sales
  - Advertising and related sales
  - Sales occupations, other business services
- Sales reps., commodities, exc. retail, inc. sales engrs.
- Sales workers, retail and personal services
  - Sales workers, motor vehicles and boats
  - Sales workers, apparel
  - Sales workers, shoes
  - Sales workers, furniture and home furnishings
  - Sales workers, radio, tv, hi-fi, and appliances
  - Sales workers, hardware and building supplies
  - Sales workers, parts
  - Sales workers, other commodities

Occupation—Continued

- Sales counter clerks
- Cashiers
- Street and door-to-door sales workers
- News vendors
- Sales-related occupations
  - Demonstrators, promotors, and models, sales
  - Auctioneers
  - Sales support occupations, n.e.c.

Administrative support occupations, including clerical

- Supervisors, administrative support
  - Supervisors, general office
  - Supervisors, computer equipment operators
  - Supervisors, financial records processing
  - Chief communications operators
  - Supervisors, distribution, scheduling, & adjusting
- Computer equipment operators
  - Computer operators
  - Peripheral equipment operators
- Secretaries, stenographers, and typists
  - Secretaries
  - Stenographers
  - Typists
- Information clerks
  - Interviewers
  - Hotel clerks
  - Transportation, ticket and reservation agents
  - Receptionists
  - Information clerks, n.e.c.
- Records processing occupations, except financial
  - Classified-ad clerks
  - Correspondence clerks
  - Order clerks
  - Personnel clerks, except payroll and timekeeping
  - Library clerks
  - File clerks
  - Records clerks
- Financial records processing occupations
  - Bookkeepers, accounting, and auditing clerks
  - Payroll and timekeeping clerks
  - Billing clerks

Occupation—Continued

- Cost and rate clerks
- Billing, posting, & calculating machine operators
- Duplicating, mail, & other office machine operators
  - Duplicating machine operators
  - Mail preparing & paper handling machine operators
  - Office machine operators, n.e.c.
- Communications equipment operators
  - Telephone operators
  - Telegraphers
  - Communications equipment operators, n.e.c.
- Mail and message distributing operators
  - Postal clerks, except mail carriers
  - Mail carriers, postal service
  - Mail clerks, except postal service
  - Messengers
- Material recording, scheduling, & distr. clerks
  - Dispatchers
  - Production coordinators
  - Traffic, shipping, and receiving clerks
  - Stock and inventory clerks
  - Meter readers
  - Weighers, measurers, and checkers
  - Samplers
  - Expediters
  - Material rec'dg. scheduling, & distr. clerks
- Adjusters and investigators
  - Insurance adjusters, examiners, and investigators
  - Investigators and adjusters, except insurance
  - Eligibility clerks, social welfare
  - Bill and account collectors
- Miscellaneous administrative support occupations
  - General office clerks
  - Bank tellers
  - Proofreaders
  - Data-entry keyers
  - Statistical clerks
  - Teachers' aides
  - Administrative support occupations, n.e.c.

Occupation—Continued

- Service occupations
  - Private household occupations
    - Launderers and ironers
    - Cooks, private household
    - Housekeepers and butlers
    - Child care workers, private households
    - Private household cleaners and servants
  - Protective service occupations
  - Supervisors, protective service occupations
    - Supervisors, firefighting and fire prevention
    - Supervisors, police and detectives
    - Supervisors, guards
  - Firefighting and fire prevention occupations
    - Fire inspection and fire prevention occupations
    - Firefighting occupations
  - Police and detectives
    - Police and detectives, public service
    - Sheriffs, bailiffs, & other law enforcement officers
    - Correctional institution officers
  - Guards
    - Crossing guards
    - Guards and police, except public service
  - protective service occupations, n.e.c.
- Service occupations, exc protective and pvt. household
  - Food preparation and service occupations
    - Supervisors, food preparation and service
    - Bartenders
    - Waiters and waitresses
    - Cooks, except short order
    - Short-order cooks
    - Food counter, fountain, and related occupations
    - Kitchen workers, food preparation
    - Waiters'/waitresses' assistants
    - Miscellaneous food preparation occupations
  - Health service occupations
    - Dental assistants
    - Health aides, except nursing
    - Nursing aides, orderlies, and attendants
  - Cleaning & bldg. service occupations, exc. household
    - Supervisors, cleaning and building service workers

Occupation—Continued

- Maids and housemen
- Janitors and cleaners
- Elevator operators
- Pest control occupations
- Personal service occupations
  - Supervisors, personal service occupations
  - Barbers
  - Hairdressers and cosmotologists
  - Attendants, amusement and recreation facilities
  - Guides
  - Ushers
  - Public transportation attendants
  - Baggage porters and bellhops
  - Welfare service aides
  - Child care workers, except private household
  - Personal service occupations, n.e.c.
- Precision production, craft, and repair occupations
  - Mechanics and repairers
    - Supervisors, mechanics and repairers
    - Mechanics and repairers, except supervisors
      - Vehicle & mobile equipment mechanics & repairers
        - Automobile mechanics
        - Bus, truck, and stationary engine mechanics
        - Aircraft engine mechanics
        - Small engine repairers
        - Automobile body and related repairers
        - Aircraft mechanics, except engine
        - Heavy equipment mechanics
        - Fare equipment mechanics
      - Industrial machinery repairers
      - Machinery maintenance occupations
      - Electrical and electronic equipment repairers
        - Electronic repairers, communications & industrial
        - Data processing equipment repairers
        - Household appliance and power tool repairers

Occupation—Continued

        - Telephone line installers and repairers
        - Telephone installers and repairers
        - Misc. electrical & electronic equipment repairers
      - Heating, air conditioning, & refrig. mechanics
      - Miscellaneous mechanics and repairers
        - Camera, watch, and musical instrument repairers
        - Locksmiths and safe repairers
        - Office machine repairers
        - Mechanical controls and valve repairers
        - Elevator installers and repairers
        - Millwrights
        - Specified mechanics and repairers, n.e.c.
        - Not specified mechanics and repairers
  - Construction trades
    - Supervisors, construction occupations
      - Suprvsrs., brickmasons, stonemasons, & tile setters
      - Supervisors, carpenters and related workers
      - Supvsrs., electricians & power tranmssn. installers
      - Supervisors, painters, paperhangers, & plasterers
      - Supervisors, plumbers, pipefitters, & steamfitters
      - Supervisors, n.e.c.
    - Construction trades, except supervisors
      - Brickmasons and stonemasons
      - Tile setters, hard and soft
      - Carpet installers
      - Carpenters
      - Drywall installers
      - Electricians
      - Electrical power installers and repairers
      - Painters, construction and maintenance
      - Paperhangers
      - Plasterers

Occupation—Continued

- Plumbers, pipefitters, and steamfitters
- Concrete and terrazzo finishers
- Glaziers
- Insulation workers
- Paving, surfacing, and tamping equipment operators
- Roofers
- Sheet metal duct installers
- Structural metalworkers
- Drillers, earth
- Construction trades, n.e.c.

Extractive occupations
- Supervisors, extractive occupations
- Drillers, oil well
- Explosive workers
- Mining machine operators
- Mining occupations, n.e.c.

Precision production occupations
- Supervisors, production occupations
- Precision metalworking occupations
  - Tool and die makers
  - Precision assemblers, metal
  - Machinists
  - Boilermakers
  - Precision grinders, fitters, and tool sharpeners
  - Patternmakers and model makers, metal
  - Lay-out workers
  - Precious stones and metals workers (jewelers)
  - Engravers, metal
  - Sheet metal workers
  - Miscellaneous precision metalworkers
- Precision woodworking occupations
  - Patternmakers and model makers, wood
  - Cabinet makers and bench carpenters
  - Furniture and wood finishers
  - Miscellaneous precision woodworkers
- Precision textile, apparel, and furnishings machine
  - Dressmakers
  - Tailors
  - Upholsterers

Occupation—Continued

- Shoe repairers
- Apparel and fabric patternmakers
- Miscellaneous precision apparel and fabric workers

Precision workers, assorted materials
- Hand molders and shapers, except jewelers
- Patternmakers, lay-out workers, and cutters
- Optical goods workers
- Dental laboratory & medical appliance technicians
- Bookbinders
- Electrical and electronic equipment assemblers
- Miscellaneous precision workers, n.e.c.

Precision food production occupations
- Butchers and meat cutters
- Bakers
- Food batchmakers

Precision inspectors, testers, and related workers
- Inspectors, testers, and graders
- Adjusters and calibrators

Plant and system operators
- Water and sewage treatment plant operators
- Power plant operators
- Stationary engineers
- Miscellaneous plant and system operators

Operators, fabricators, and laborers
- Machine operators, assemblers, and inspectors
  - Machine operators and tenders, except precision
    - Metalworking and plastic working machine operators
      - Lathe and turning machine set-up operators
      - Lathe and turning machine operators
      - Milling and planing machine operators
      - Punching and stamping press machine operators
      - Rolling machine operators

Occupation—Continued
Drilling and boring machine operators
Grinding, abrading, buffing, & polishing machinists
Forging machine operators
Numerical control machine operators
Misc metal, plastic, stone, & glass wkg. mach. ops.
Fabricating machine operators, n.e.c.
Metal and plastic processing machine operators
Molding and casting machine operators
Metal plating machine operators
Heat treating equipment operators
Misc. metal & plastic processing machine opers.
Woodworking machine operators
Wood lathe, routing, & planing machine operators
Sawing machine operators
Shaping and joining machine operators
Nailing and tacking machine operators
Miscellaneous woodworking machine operators
Printing machine operators
Photoengravers and lithographers
Typesetters and compositors
Miscellaneous printing machine operators
Textile, apparel, & furnishings machine operators
Winding and twisting machine operators
Knitting, looping, taping, & weaving mach. opers.
Textile cutting machine operators
Textile sewing machine operators
Shoe machine operators
Pressing machine operators
Laundering and dry cleaning machine operators

Occupation—Continued
Miscellaneous textile machine operators
Machine operators, assorted materials
Cementing and gluing machine operators
Packaging and filling machine operators
Extruding and forming machine operators
Mixing and blending machine operators
Separating, filtering, & clarifying machine operators
Compressing and compacting machine operators
Painting, coating, & paint spraying machine operators
Roasting and baking machine operators
Washing, cleaning, & pickling machine operators
Folding machine operators
Furnace, kiln, and oven operators, except food
Crushing and grinding machine operators
Slicing and cutting machine operators
Motion picture projectionists
Photographic process machine operators
Miscellaneous machine operators, n.e.c.
Machine operators, not specified
Fabricators, assemblers, and hand working occupations
Welders and cutters
Solderers and brazers
Assemblers
Hand cutting and trimming occupations
Hand molding, casting, and forging occupations
Hand painting, coating, and decorating occupations
Hand engraving and printing occupations
Hand grinding and polishing occupations
Miscellaneous hand working occupations
Production inspectors, testers, samplers, and weighers

Occupation—Continued

- Production inspectors, checkers, and examiners
- Production testers
- Production samplers and weighers
- Graders and sorters, except agricultural

Transportation and material moving occupations

- Motor vehicle operators
  - Supervisors, motor vehicle operators
  - Truck drivers, heavy
  - Truck drivers, light
  - Driver-sales workers
  - Bus drivers
  - Taxicab drivers and chauffeurs
  - Parking lot attendants
  - Motor transportation occupations, n.e.c.
- Transportation occupations, except motor vehicle
  - Rail transportation occupations
    - Railroad conductors and yardmasters
    - Locomotive operating occupations
    - Railroad brake, signal, and switch operators
    - Rail vehicle operators, n.e.c.
  - Water transportation occupations
    - Ship captains and mates, except fishing boats
    - Sailors and deckhands
    - Marine engineers
    - Bridge, lock, and lighthouse tenders
- Material moving equipment operators
  - Supervisors, material moving equipment operators
  - Operating engineers
  - Longshore equipment operators
  - Hoist and winch operators
  - Crane and tower operators
  - Excavating and loading machine operators
  - Grader, dozer, and scraper operators
  - Industrial truck and tractor equipment operators
  - Miscellaneous material moving equipment operators
- Handlers, equipment cleaners, helpers, and laborers
  - Supervisors, handlers, equipment cleaners, & laborers
  - Helpers, mechanics and repairers

Occupation—Continued

- Helpers, construction and extractive occupations
  - Helpers, construction trades
  - Helpers, surveyor
  - Helpers, extractive occupations
- Construction laborers
- Production helpers
- Freight, stock, and material handlers
  - Garbage collectors
  - Stevedores
  - Stock handlers and baggers
  - Machine feeders and offbearers
  - Freight, stock, and material handlers, n.e.c.
- Garage and service station related occupations
- Vehicle washers and equipment cleaners
- Hand packers and packagers
- Laborers, except construction

Farming, forestry, and fishing occupations

- Farm operators and managers
  - Farmers
  - Farm managers
- Other agricultural and related occupations
  - Farm occupations, except managerial
    - Supervisors, farm workers
    - Fare workers
    - Marine life cultivation workers
    - Nursery workers
  - Related agricultural occupations
    - Supervisors, related agricultural occupations
    - Groundskeepers and gardeners, except farm
    - Animal caretakers, except farm
    - Graders and sorters, agricultural products
    - Inspectors, agricultural products
  - Forestry and logging occupations
    - Supervisors, forestry and logging occupations
    - Forestry workers, except logging
    - Timber cutting and logging occupations
  - Fishers, hunters, and trappers
    - Captains and other officers, fishing vessels
    - Fishers
  - Hunters and trappers

Count of In-House Users (User Log)

G. COUNT OF IN-HOUSE USERS (USER LOG)

DATE: _____ DEPOSITORY LIBRARY NO.: _____

Type of Depository Material:	Number of Users during Every Hour										Total
Paper Copy											
Microfiche											
Maps											
Could Not Determine Type of Depository Publication											
Totals											

Publicity Signage

DURING THIS WEEK OUR LIBRARY IS PARTICIPATING IN A NATIONAL USER SURVEY OF UNITED STATES GOVERNMENT DEPOSITORY LIBRARIES.

WE WOULD GREATLY APPRECIATE YOUR ASSISTANCE IN COMPLETING THIS STUDY. THANKS!

NATIONAL SURVEY IN PROGRESS

USER SURVEY

PLEASE COMPLETE ONE

Appendix I

Data Handling Procedures

COMPLETING MASTER CHECK-IN FORM

Fill in master check-in form, including

- Date
- Name and ID number of library
- Presence (mark with a check-mark) of library, information forms (LIF), user log, and user tickets. Leave blank if documents are missing
- If documents are missing, or there is another obvious problem, mark the problems column and describe the problem briefly under the comments column. Check the comments section of LIF to see if the library explained any problems there
- Put your initials in the "init." column
- Ignore the "usable/un." column (which will be filled in when the tickets are counted) and the "gone" column (which will be filled in when the tickets go to Data Entry).

Possible Problems

- If the user log is missing, note that. However, send the rest of the documents to the next stage
- If either the LIF or the user tickets is missing, separate that set, note the problem on the master sheet, and hold for problem resolution
- If only daily user logs were sent, fill in a summary user log. Do not send the daily logs on to data entry. Separate and discard them.

Mark date on LIF before throwing envelope away.

For "okay" sets, separate the user tickets from the LIF. Rubber band the user tickets and clearly label with library ID# and name.

Staple the user log and the LIF together with the demo sheet on top.

Place user tickets in the box for stamping and user log/LIF in box for checking.

USER TICKET STAMPING PROCEDURE

Create a stamp for the library ID, inserting a "4" for academic libraries and a "5" for public libraries, as the first digit of the number.

Note library ID# on the top left of the first ticket.

Stamp the ticket # on the top right of each ticket. Remember to reset the counter for each library.

Scan tickets for possible problems. After stamping, separate problem tickets from others, rubber band, and clearly label with library ID#, and problem description.

Rubber band usable tickets. Keep usable tickets and problem tickets together until fixable problems have been resolved.

The number of usable and unusable tickets must be noted on the master sheet once any fixable problems have been resolved.

Insert usable tickets in box for data entry and put any remaining unusable tickets aside.

USER LOG/LIBRARY INFORMATION FORM PROCEDURE

Add first digit ("4" for academic, "5" for public) to the library ID#, on the LIF.

Add additional responses to the bottom of the LIF, as per code instructions.

Make sure library ID# is on user log.

Check user log to make sure numbers on right hand column tally properly. If not, correct.

Scan for other problems. Separate document sets with problems from other sets.

Put problem document sets in Problem Envelope for attention. Put "okay" sets in box for data entry.

STEPS TAKEN TO ENSURE CONSISTENCY IN DATA CODING

I. User Tickets: General Decisions

A. Tickets that were completely blank were discarded.

B. Tickets that were blank except for the portion to be completed by library staff were discarded.

C. When one ticket was used to represent two or more users, and that number of users was given (e.g., "group of 15 students"), separate tickets were created for each person. If the number of males and females was given, that question was answered on each card. If any answer was known to apply to all the users in the group (e.g., "using a document"), that answer was checked. Otherwise, these cards were left blank.

D. When an answer was circled or otherwise marked without placing a check in the box, the appropriate box was marked.

E. When one ticket was used to summarize all the tickets that had been collected by one library (with a number marked next to each response), and the individual tickets were not returned by the library, the procedure in C (above) was followed.

F. When a ticket was obviously misused, it was discarded. Examples: tickets with every box on the face of the card checked, and tickets covered with irrelevant or humorous comments and no usable answers.

II. User Tickets: Decisions on Individual Questions

Question 1:

A. When the space following "other" was filled in with a comment but no box was checked, the "yes" box was marked.

B. When the space following "other" was filled in with "taking a tour," and no other box was checked, the ticket was discarded.

Question 2:

A. When the answer was written in the blank space and not checked as "yes" or "no," the appropriate box was marked.

B. On the Public Library ticket, where there was confusion due to the printed error on the card, the appropriate box was marked whenever the answer could be determined.

Question 3:

A. When both boxes were checked or the answer was otherwise unusable, the question was marked "code as 0."

Question 4 (Public Library Ticket):

A. When more than one box was checked, the box representing the highest level of schooling was marked.

B. When a comment was written indicating that the user was in the process of earning a master's degree, the "master's degree or doctorate" box was marked.

C. When a comment was written indicating that the user had a J.D. or another advanced degree, but no box was checked, "the master's degree or doctorate" box was marked.

Question 4 (Academic Library Ticket):

A. When more than one box was checked, the box closest to the top of the card was marked. "College student" took priority over "staff member," for example.

B. Many users marked law student, medical student, graduate student, etc., in the "other" space. In such instances, "college student" was marked.

C. When a comment was given in the blank following "other," and that comment duplicated one of the answer options, the appropriate answer was marked.

D. When the only box checked in the "no" column, and the answers to questions 2 and 3 (above) were in the same column ("no" for question 2 and "male" for question 3), the "yes" box was marked under the assumption that the user simply misplaced his check mark.

Question 5 (Public Library Ticket):

A. When an occupation was given in the blank following "other," and that occupation obviously correlated with one of the answer options, the appropriate answer was marked.

B. When "retired," "student," or "unemployed" was checked along with another answer, "retired," "student," or "unemployed" was given priority.

C. Otherwise, when two boxes were checked, an attempt was made to alternate, throughout a stack of tickets, between marking the answer higher on the card and marking the answer lower on the card.

D. When three or more boxes were checked, the question was marked "code as 0."

E. When an occupation was given in the blank following "other," and that occupation did not obviously correlate with one of the answer options, care was taken to see that the box for "other" was marked.

Question 5 (Academic Library Ticket):

A. The same procedures were applied as in question 4 (public library ticket) above.

Question 6:

A. When two answers were checked, priority was given to the answer higher on the card ("in-person" was selected over "by telephone," for example.

B. If all three answers were checked, the question was marked "code as 0."

C. When it was obvious that both the user and the staff member had answered the question, the box checked by the staff member was given priority.

Question 7:

A. When two boxes were checked, it was typical for other cards in the same stack to have the same two boxes checked. An attempt was made to alternate, throughout the stack, between the given answers.

B. When three or more boxes were checked, the answer was marked "code as 0."

C. On the Public Library ticket, when "humanities," "business," or another subject was named in the blank following "other," the "subject division" box was marked instead.

D. When it was obvious that both the user and the staff member had answered the question, the box checked by the staff member was given priority.

III. User Logs

A. If individual (daily) logs were sent but were not summarized, a summary log was prepared.

B. If separate logs or summary logs were made for different departments or branches, these totals were summarized onto a single user log.

C. If the summary log was sent but totals were not calculated, this information was added.

D. If the user log was obviously used to tally the number of user tickets completed, the log was discarded.

E. If the hours of the day were added (e.g., 1:00 plus 2:00 plus 3:00 equals 6 hours) this total was crossed out.

F. If the number of users was entered where the hours of the day were supposed to be entered, and no other numbers were given, the number of users was transferred to the "could not determine type . . ." row.

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